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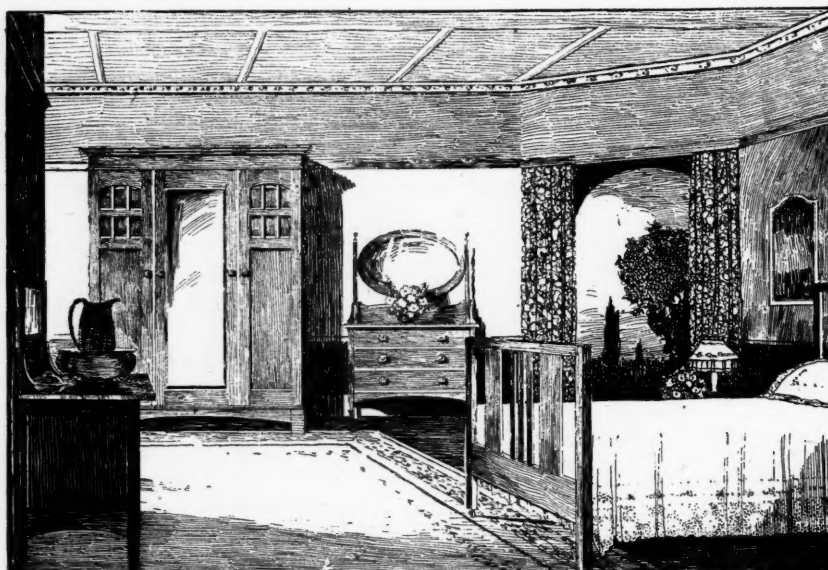
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No. 17.

SOME REMARKS ON THE PHYSIOLOGY OF THE DUCTLESS GLANDS.¹

By Henry Priestley, M.D.,

From the Department of Physiology, University of Sydney.

Probably in no branch of medicine are there more hypotheses based on fewer facts than in that concerned with the ductless glands. The amount that has been written during the last few years on the functions of these glands is enormous; there is even a journal dealing exclusively with them; and in the time at my disposal it will not be possible to do more than sketch briefly what is known of the physiology of a few of these structures.

The ductless glands or, what is better, the endocrine organs, are peculiar in that whatever secretions they form are poured directly into the blood or lymph and not by way of ducts, so that they are carried to the parts of the body they influence in the blood stream.

The secretions of these organs belong to the class of substances which Starling has called hormones. Starling defines a hormone as "any substance normally produced in the cells of some part of the body and carried by the blood stream to distant parts which it affects for the good of the organism as a whole. The hormones are thus the chemical means of correlation of the activities of the different parts of the body. Their activities may be either the increase or diminution of function or the alteration of nutrition or rate of growth."

There are difficulties in the investigation of these organs, for one can seldom obtain the hormone in a state of purity.

Of the principal endocrine organs one may mention the thyroid, parathyroids, adrenals, pituitary, pancreas, ovary and testis. There are others, but we know less about them.

From the mass of contradictory statements and ill-defined hypotheses there seems to emerge one important principle that there is a definite inter-relationship between these different organs. But we are still far from clear as to what this relationship is and many of the statements made in this connexion are purely fantastic and based on the slenderest evidence. It seems probable that the internal secretions of the pancreas, suprarenals, thyroid and possibly other glands help to regulate carbo-hydrate metabolism. It is said that when all these secretions are present in the correct amounts, the metabolism of carbo-hydrates proceeds in orderly fashion. When one or more of them is diminished or present in excess, the metabolic balance is upset. The pituitary, thymus, cortex of the suprarenals and possibly the thyroid seem to have a regulating influence on the development of the reproductive organs.

Let us consider very briefly a few of the facts which have been made out with regard to certain of the endocrine organs.

It does not seem necessary at the present day to say much about the gross symptoms resulting from profound hypo- or hyper-plasia of the thyroid gland. The stunted growth, clumsy shape, low mental development of the cretin are well known to all. The opposite train of symptoms, the mental and physical restlessness and over-activity, the tachycardia of exophthalmic goitre, are even better known. The startling results following the administration of thyroid substance in cretinism show very clearly the importance of the thyroid. The administration of large doses of thyroid extract to man produces a train of symptoms somewhat like exophthalmic goitre. There is marked quickening of the pulse, with some irregularity, increased sweating, tremors and emaciation. Metabolic investigations have shown that the energy output is greatly increased, that the nitrogen excretion is excessive and that alimentary glycosuria is common.

It has been found that feeding thyroid substance, whether fresh, dried or even boiled to *Paramecium*, causes 65% increase in the rate of division over that taking place in hay infusion and that thyroid is the only secretory gland that has this effect.

With tadpoles feeding with thyroid substance causes an early somatic differentiation in proportion to the quantity fed or the percentage of iodine content of the gland used. This fact has been made use of in standardizing thyroid preparations. After removal of the thyroids in tadpoles development occurred up to a certain stage, then stopped, except for the gonads which continued to differentiate.

What is the precise rôle of the thyroid in the normal person is not quite clear, but obviously it has a great deal to do with the maintenance of the normal level of nutrition. There would seem to be a relationship between the thyroid and the adrenal medulla for stimulation of the sympathetic nerves to the thyroid or injection of thyroid extracts greatly augments the action of subsequent injections of adrenalin.

An unique feature of the thyroid is its high content of iodine and the active principle of the organ would appear to be an organic iodine compound, although it is not at all certain that this active substance has been isolated. Iodine is absolutely essential for the normal activity of the organ and the organ shows an extraordinary affinity for iodine and its salts.

That a definite interrelationship exists between the thyroid and the reproductive organs is well shown by the hypertrophy which occurs in the thyroid as a normal accompaniment of menstruation and pregnancy.

The parathyroid bodies which have anatomically a very close relationship with the thyroid, have long been objects of investigation, but it is only recently that any clear light seems to have been thrown on their functions. Extirpation of these bodies causes a condition known as *tetania parathyreopriva*, which Noël Paton and his associates have shown to be identical with idiopathic tetany. They have shown further that the injection of salts of guanidine or methyl-

¹ Read at a meeting of the New South Wales Branch of the British Medical Association on November 14, 1919.

guanidine produces all the symptoms of idiopathic tetany and that in the blood and urine of parathyroidectomized dogs and in the urine of children suffering from idiopathic tetany there is a marked increase in the guanidine compounds. Creatine, an abundant constituent of all vertebrate muscle, is methyl-guanidine acetic acid. They conclude that the parathyroids regulate the metabolism of guanidine compounds in the body, preventing their accumulation in too great quantities and so probably regulating the tone of muscles. When these bodies are removed, the guanidine accumulates in the body and gives rise to tetany and fatal issue. Now the injection of calcium salts alleviates the symptoms of all these conditions, but we do not know what conclusions are to be drawn from this fact, nor do we know whether the parathyroids produce an internal secretion or whether they remove toxic substances from the blood stream direct.

The pituitary body, like several of the other organs of internal secretion, consists of two parts essentially different in structure, origin and function. More is known concerning the posterior lobe, the *pars nervosa*, with which may be included the *pars intermedia*. From this an extract has been prepared which has marked physiological activity. Injection of this causes a considerable increase in blood pressure, due in the main to its action on the plain muscles of the arterioles. It acts on all, or at any rate most of the involuntary muscles of the body, in all cases causing an increase in tone and the action seems to be on the muscles themselves, not on the nerves. Its action on the uterine musculature is well known. It also causes an increased flow of urine and, in lactating animals, an increased flow of milk, although the latter may be due to its action on the musculature of the gland with expulsion of the milk already formed.

Now these results are obtained by the injection of relatively large amounts of the substance and it does not at all follow that the normal function of the posterior lobe of the pituitary is to produce these effects. It is probably, however, not too much to say that the posterior lobe produces hormones which have a stimulating action on several of the body functions, the tone of plain muscles, the secretion of various glands, carbo-hydrate metabolism and the development of the reproductive organs.

With regard to the anterior lobe of the pituitary, all we can say at present is that it appears to control the growth and nutrition of the body tissues, particularly the skeleton. It has long been known that general overgrowth or gigantism in early life and overdevelopment of the bones of the face and extremities or acromegaly in later life are often associated with hypertrophy and, presumably, over-activity of the anterior lobe of the pituitary. Experimental evidence is difficult to obtain as to the functions of this body. Injections of extracts produce no obvious effects beyond some reduction in blood pressure, which is in no way specific, being shown by most tissue extracts. Feeding animals with the anterior lobe has produced very contradictory results, the effects produced appearing to depend on the dosage. Brailsford Robertson has isolated a substance from the anterior lobe which

he calls tethelin. He has shown that when this substance is fed to young mice in suitable doses over prolonged periods, there is an improvement in the growth, the animals coming to have a sturdier build than the control animals. The same effect is produced by feeding with suitable doses of the gland substance itself, while larger doses cause a retardation of growth, an important point to remember in considering the therapeutic application of anterior pituitary substance.

Of the suprarenal glands we appear to know a great deal, yet in truth we know very little as to their functions. As Elliot puts it: "In spite of the great amount of work which has been done on the suprarenals, therapeutics has gained nothing except that adrenalin is a more convenient hæmostatic than the old-fashioned cobwebs." While this is not strictly true, it is not far removed from the truth.

Like the pituitary, the suprarenals are double in structure, the cortex and medulla having entirely different origins and, unquestionably, entirely different functions. The isolation of adrenalin from the suprarenal medulla and the demonstration of its well-marked physiological action seemed to throw a flood of light on the function of this portion of the suprarenal bodies. The pronounced effects of relatively small doses on the blood pressure and on all plain muscles and gland cells supplied by the sympathetic nervous system led to the conclusion that the function of adrenalin in the body must be to keep up the tone of the plain muscles of the blood vessels and generally to assist the action of the sympathetic nervous system. No one would dream of gauging the rôle of, say, potassium salts in the body from the results obtained by the injection of massive doses and yet this has been done in the case of adrenalin. The amount of adrenalin given off by the suprarenals of the cat per minute has been determined and it has been calculated that the maximum concentration in the blood at any time, *i.e.*, with the normal output, could not be more than 1:400,000,000 to 1:500,000,000. Now with such concentration no known reaction has ever been demonstrated in the normal intact animal and the amounts which have to be injected into the intact animal to produce any marked effect on the blood pressure, have to be many thousand times this. After complete destruction of the medulla, or what comes to the same thing physiologically, after section of the nerves supplying the medulla, the animals recovered and behaved in every way like normal animals, although the adrenalin content of the blood could not have been more than 1 part in 40,000,000,000.

The evidence seems to show that whatever is the function of the adrenalin liberated by the suprarenal medulla under normal conditions, the suprarenal medulla is not essential to life.

It has been suggested that the secretion of adrenalin is a reserve mechanism which comes into action in times of stress, and that the increased supply of adrenalin supposed to be produced under these conditions is of benefit in that it facilitates the response of the sympathetic nervous system. On this point a great amount of attractive theorizing has been done, but it must be said that it rests on very insecure foundations.

To put it briefly, we do not know what is the function of the suprarenal medulla.

About the functions of the suprarenal cortex, we know, if anything, rather less. It can readily be shown that this part of the gland is essential to life and removal of the cortex is followed quickly by symptoms resembling those of Addison's disease, except that they are much more acute and death soon supervenes. Portions of the suprarenal are readily grafted under the skin, but only the cortex survives. If, then, the suprarenals be removed the animal will survive.

The cortex is derived from the same mesodermic structure which gives rise to the kidneys and genital organs and in line with this there is some evidence that the suprarenal cortex has some relation to the activity of the sexual glands. It undergoes hypertrophy during pregnancy and, indeed, the various phases of sexual life are accompanied by histological changes in the cortex. The profound muscular weakness following extirpation of the suprarenals and observed in Addison's disease, is evidence that one of the functions of the suprarenal cortex in the maintenance of the tone of skeletal muscles.

The foregoing account of the physiology of some of the endocrine organs is necessarily very brief and incomplete and may seem pessimistic. I hope, however, that I have been able to indicate that however much we know concerning the functions of the endocrine organs at the present time, what we do not know is vastly greater in amount.

The subject is full of interest and importance and brilliant results may be expected from the continued study of these organs, but I wish to enter a protest against the indiscriminate theorizing on the most meagre data and the promiscuous drugging of all and sundry with gland products which are so common at the present time. They can only do harm to a branch of medicine which is full of promise.

"CATARRH," SO-CALLED NASAL AND POST-NASAL, ITS CAUSES AND TREATMENT.¹

By A. J. Brady, L.K.Q.C.P.I., L.R.C.S.I.,

Honorary Consulting Surgeon, Department for Diseases of the Ear, Nose and Throat, Sydney Hospital.

See the daily press with its page-long advertisements and anatomical diagrams, showing with boldly directed arrow, how this dire disease passes from our nasal cavities and invades our lungs, or occasionally makes a successful raid on our stomachs. The advertisement generally ends up with this statement: "Doctors say catarrh is incurable. We have discovered an infallible specific. Swat catarrh will absolutely cure it and eradicate it from the system." All of which goes to show that catarrh, like baldness, is a comparatively common ill of humanity, otherwise it would not pay "professors" to spend large sums of money in advertising their ability to cure it. I therefore feel that in selecting this subject for discussion,

I have chosen one which is of much interest to us as specialists and if we can help one another to an improved treatment of the various phases of this condition, we shall be conferring a benefit on humanity. After some 30 years of special practice in oto-rhino-laryngology, I am still anxious to learn and I hope receptive, so let everyone bring some information from his store of experience and let the light of his intuition shine. We are all here to learn and I feel that we can help one another to understand something of the nature of this condition and the means of its treatment. Nasal and post-nasal catarrh is not a disease; it is a symptom of various local pathological conditions or of some systemic dyscrasia.

As specialists, we are chiefly concerned with local pathological conditions, yet we must never forget that we are physicians and as such we will not attempt to treat by local means a condition for which no local cause can be seen.

After long years of experience in the examination and treatment of the special region under consideration, the eye gets trained to notice departures from the normal; judgement founded on experience enables us to estimate the importance or otherwise of abnormal local conditions, if they are present. We also learn the best and safest way of dealing with the defect. If it is effective, let us always choose the safest way. Our patient trusts his welfare to us; not only his life, but the happiness of his family and those dear to him is in our hands. I would say here that no one should attempt an operation, which may involve loss of life or material injury, unless he feels that he is competent to carry it out successfully. I am sure none of us would do so. We would probably know some colleague to whom we would trust the treatment.

It would be a long story to enumerate all the causes and methods of treatment of nasal and post-nasal catarrh, as known even to me, without drawing on the literature, which I do not propose to do. I shall try to remember and place before you some of the outstanding facts which have come within my experience.

Nasal catarrh in the shape of a common cold in the head can occur without any local abnormality as an exciting cause, but certain individuals, particularly children, may be specially predisposed to attacks. Here we shall find adenoids of the naso-pharynx as the most common cause. The remedy is obvious. In skilled hands the removal of the cause is complete and permanent. Nowadays many men without any special training undertake the operation. The results most of us have seen. An incompletely removed growth, with traumatism of the Eustachian cushions and bands of adhesion binding the same to the roof of the naso-pharynx, thus converting Rosenmüller's fossa into a tunnel which becomes a receptacle for decomposed secretions. One of the causes of post-nasal catarrh has here been manufactured by the unskilled surgeon.

Vasomotor rhinitis, or hay fever, is popularly spoken of as catarrh. While this malady has gen-

¹ Being a paper read before the Congress on Diseases of the Eye, Ear, Nose and Throat at Melbourne on November 1, 1918.

erally a constitutional basis and frequently a history of hereditary predisposition, local abnormal conditions within the nose play a large part in its causation and determine attacks in predisposed individuals. It is our privilege as specialists to treat and remove local exciting causes. My own experience is that here we have a field where excellent, even brilliant results, can be obtained, in some cases. Good results can be expected in a large proportion of cases and it is seldom indeed that we fail to afford a measure of relief. A patient comes again after 5 or 6 years; it may be for some return of symptoms or some other trouble. He is grateful for the relief obtained on his first visit. We turn up his notes and see what a couple of sittings accomplished. It may be we never again see him as a patient. A friend tells me that some 15 years ago I removed a septal spur for him; since then he has had no further trouble with his vasomotor rhinitis and asthma. He is well in Sydney, while before he was obliged to live away from the coast. Not always can we count on such results in a malady which has a constitutional as well as a local basis, but we seldom fail to afford very substantial relief.

Cauterization of reflex areas and the removal of intranasal pressure by submucous resection of nasal spurs and high deflections of the septum may be mentioned as our main line of action.

As a cause of catarrh we then come to hypertrophies of the middle and inferior turbinal bodies, in particular their posterior ends. In this condition we have a potent cause of post-nasal catarrh as well as nasal obstruction. Secretion of a fluid is a part of the physiological function of the turbinated bodies, particularly the inferior turbinal. In diseased conditions the hypertrophic middle turbinal contributes its share, hence hypertrophy, over secretion, catarrh. Whatever means we use to remove these hypertrophies, to effect a cure, they must be reduced. We can reduce them slowly by the application of chemical caustics, such as trichlor-acetic acid, or more quickly by the galvano-cautery. We can amputate them in one act with Dr. Kent Hughes's very effective "jigger," or we can cut them off by various other means. I would warn colleagues against the risk of secondary hæmorrhage after the use of the galvano-cautery. We can reduce the posterior ends by this means without the loss of a drop of blood, yet four or five days later, when the sloughs separate, a dangerous hæmorrhage may set in.

I once had such an experience and only saved the patient's life by the insertion of double post-nasal tampons. The application of trichlor-acetic acid appears to be quite free from this risk. It is carried on a suitably curved applicator and under the guidance of the post-nasal mirror firmly rubbed into the hypertrophies. This requires a little more skill than the galvano-cautery, as it has to be carried "alive" direct to the diseased area without touching other parts, but this is only in the daily routine of the skilled craftsman; given a fairly tolerant patient, it presents no difficulty to him. Tolerant can be produced in most patients, but this is another story.

Mucoid hypertrophies on the posterior septal margins is another cause of post-nasal catarrh; and more than this, they give the patient a constant sense of something foreign at the back of the nose, which causes him to snuffle, snort and spit in a disagreeable manner. There is a strange absence of reference to this condition in standard works on rhinology, but it is one very familiar to me for many years. The hypertrophies can be reduced by the application of the galvano-cautery or by chemical caustics, preferably the latter, as there is then no danger of hæmorrhage.

Sphenoidal sinus suppuration is generally recognized as an occasional cause of post-nasal catarrh, but aberrant flow of secretions from diseased antra of Highmore is a cause, as I know, liable to be frequently overlooked. I have seen many cases where the well-known symptom of reflow of pus outside the anterior end of the middle turbinal after hanging the head forward never occurs, but posterior rhinoscopy will show a trail of pus coming from under the posterior end of the middle turbinal and flowing over the Eustachian cushion of the corresponding side. At the present day these irregular cases are less likely to be overlooked.

Some 18 years ago a case came under my notice which appeared to have misled prominent physicians and rhinologists in two hemispheres, so that the patient was treated for post-nasal catarrh and sent to health resorts under suspicion of tubercular disease of the lungs, while his sole trouble was a suppurating antrum of Highmore, with flow of pus always backwards, easily cured by an Ogsden-Luc operation. I was well acquainted with these irregular cases even then—thanks perhaps to a constant habit of careful posterior rhinoscopy, and I wrote a short paper on the subject, which appeared in the *Journal of Laryngology*. My advice is in cases of so-called post-nasal catarrh, never neglect to investigate the condition of the nasal sinuses. Coming to the post-nasal space as a source of the symptom, we find a very obstinate condition, so-called Thornwald's disease. The secretion forms in the *sulcus pharyngeus*, a groove or duct between the two lateral layers of adenoid tissue. It looks a simple matter to destroy the secreting surface by sharp spoon, galvano-cautery or chemical caustics, but experience teaches otherwise. It would appear that here one of the branchial tracts exists and that a condition in a minor degree akin to thyro-glossal fistula may sometimes be present. This is not to be cured in one or two sittings; patience is required. Again, in the naso-pharynx we have the condition before referred to, where bands of adhesions bind the upper lip of the Eustachian cushion to the roof of the naso-pharynx, thus converting the horizontal limb of the Rosenmüller's fossa into a tunnel. The worst cases result from unskilled attempts to remove adenoids; some are the remains of an adenoid which has atrophied. It seems strange in the latter case that without a wound, the adenoid can form an adhesion with the upper lips of the Eustachian cushions; possibly some inflammatory attack is the cause.

These adhesions must be cut through and the upper

lip of the Eustachian cushion let free from the roof of the naso-pharynx. The tunnel is again converted into a groove or open cutting. This is important not only on account of its preventing the lodgment of decomposing secretions in the tunnel, and so removing one of the causes of post-nasal catarrh, but in relation to the health of the middle ear. Many cases of middle ear catarrh, otherwise intractable, will improve if Rosenmüller's groove is cleared.

SOME OBSERVATIONS ON NON-LIGATURE OF THE PROXIMAL END OF THE UMBILICAL CORD.

By A. J. Bothamley, M.B., B.S.,
Bright, Victoria.

During the past eleven months I have experimented with the umbilical cord to discover, if possible, the effect of non-ligature of the proximal end of the cord, *i.e.*, that end attached to the placenta and, although the number of cases (twenty-eight) is not sufficient to give reliable data, yet the results are striking enough to warrant further investigation.

Owing to the unduly large number of manual removals necessitated by the non-delivery of the secundines within one hour, it was assumed that if the blood were drained from the placenta, the villi would collapse, thus rendering detachment easier and quicker and saving the mother much exposure and discomfort.

The method followed was to allow pulsation in the cord to cease, the cord being palpated as close to the

vulva as possible. The cord was then tied 2 cm. from the umbilicus and cut through, the proximal end being allowed to bleed. The fundus was held by an assistant till delivery of the placenta took place.

The results show that in fifteen cases in which the cord was tied and cut in the routine method, the average time of delivery was forty minutes and involved four manual removals. The number of lacerations of the secundines was also very large.

In thirteen cases where the proximal end was allowed to bleed the average time of delivery was 18.7 minutes, a saving of 21.3 minutes. In addition, no manual removals were necessary and in only two cases were there obvious lacerations of the placenta.

A full table of results is appended below.

GIBBON'S HYDROCELE.

By C. MacLaurin, M.B., C.M., F.R.C.S.E.,
Sydney.

The story of the gigantic hydrocele of Edward Gibbon, the historian, and how it ultimately brought him to his death may be interesting. For many years it has been taught—I have taught it myself—that Gibbon's hydrocele was the largest on record, that it contained twelve pints of fluid, and that it was, in short, one of those colossal and monstrous things which exist mainly in romance; one of those chimeras which grow in the minds of the half-informed, and those who wish to be deceived. For a brief moment this chimera looms its huge bulk over serious history;

Cord Not Tied

Case No.	Date.	No. of Labour.	Age, Years.	Presentation.	Notes.	Minutes.
2	18.4.19	2	27	Right occipito-posterior	Arm; secundines complete	15
4	26.5.19	5	?	Left occipito-anterior	Secundines complete	6
8	6.7.19	3	?	Right occipito-anterior	Secundines complete	12
10	13.8.19	4	34	Left occipito-anterior	Secundines complete	32
12	21.8.19	7	39	Left occipito-anterior	Secundines complete	16
14	9.9.19	7	33	Right occipito-posterior	Secundines complete	20
15	21.9.19	3	35	Left occipito-anterior	Secundines complete	20
16	21.10.19	4	30	Left occipito-anterior	Secundines incomplete	35
19	24.11.19	5	30	Right occipito-anterior	Secundines complete	14
20	21.12.19	4	32	Left occipito-anterior	Secundines complete	16
23	22.2.20	9	40	Right occipito-posterior	Secundines complete	12
24	28.2.20	5	29	Left occipito-anterior	Secundines incomplete	20
28	10.3.20	4	28	Born before arrival	Secundines complete	725

Cord Tied.

Case No.	Date.	No. of Labour.	Age, Years.	Presentation.	Notes.	Minutes.
1	13.4.19	7	34	Left occipito-anterior	Placenta and membranes complete	25
3	13.5.19	3	28	Shoulder	Version; membranes complete; post-partum hemorrhage	40
5	21.6.19	3	35	?	Born before arrival; membranes complete (expressed)	28
6	25.6.19	5	31	Right occipito-anterior	Manual removal (complete)	70
7	27.6.19	3	28	Left occipito-anterior	Manual removal (complete)	75
9	9.7.19	9	?	Left occipito-anterior	Membrane incomplete	51
11	14.8.19	4	32	Right occipito-posterior	Membrane incomplete	22
13	9.9.19	2	26	Breech	Membrane complete	12
17	12.11.19	1	24	Twins (vertex)	Manual removal (complete)	75
18	21.11.19	3	25	Left occipito-anterior	Compression by forceps on cord; incomplete	3
21	6.2.20	4	32	Right occipito-posterior	Secundines complete	35
22	7.2.20	7	38	Left occipito-anterior	Secundines complete	45
25	1.3.20	5	33	Right occipito-anterior	Secundines incomplete	15
26	2.3.20	1	22	Face	Secundines incomplete	45
27	10.3.20	3	38		Manual removal (complete)	60

it is pricked, it disappears for ever, carrying with it into the shades the greatest of historians, perhaps the greatest of English prose-writers. What do we really know about it?

The first hint of trouble given by the hydrocele occurs in a letter by Gibbon to his very intimate friend, Lord Sheffield. It is so delicious, so typical of the eighteenth century, of which Gibbon himself was probably the most typical representative, that I cannot resist re-telling it. Two days before he has hinted to his friend that he was rather unwell; now he modestly draws the veil from before his state of health. "Have you never observed, through my inexpressibles, a large prominence *circa genitalia*, which, as it was not at all painful and very little troublesome, I had strangely neglected for many years?" Personally I have never heard a hydrocele so gracefully described. There is here a touch of the mind which had described chivalry as "the worship of God and the ladies"; the courteous and urbane turn of speech which refuses to call a spade a spade, yet produces an effect of severe reality.

Gibbon had been staying at Sheffield House in the preceding June—the letter was written in November—and his friends all noted that "Mr. G." had become strangely loth to take exercise and very inert in his movements. Indeed, he had detained the house-party in the house during lovely days together while he orated to them on the folly of unnecessary exertion; and such was his charm that everyone, both women as well as men, seems to have cheerfully given up the glorious English June weather to keep him company. Never was he more brilliant; never a more delightful companion; yet all the time he was like the Spartan boy and the wolf, for he knew of his secret trouble, yet he thought that no one else suspected. It is an instance of how little we see ourselves as others see us that this supremely able man, who could see as far into a mill-stone as anyone, lived for years with a hydrocele that reached below his knees, wearing the tight breeches of the eighteenth century, in the fond delusion that nobody else knew anything about it. Of course everyone knew; and when at length the tragedy came to the last act, it turned out that everyone had been talking about it all the time and that they thought it was a rupture and that of course he had taken advice and that anyhow nothing could be done about it.

After leaving Sheffield House the hydrocele increased suddenly, as he himself says, "most stupendously"; and it began to dawn upon him that it "ought to be diminished." So he called in Dr. Walter Farquhar; and Dr. Farquhar was very serious and called in Dr. Cline, "a surgeon of the first eminence," both of whom "viewed it and palped it," and pronounced it a hydrocele. Mr. Gibbon with his usual good sense and calm mind prepared to face the "operation," and a future prospect of wearing a truss, which Cline intended to order for him. In the meanwhile he was to crawl about with some labour and "much indecency," and he prayed Lord Sheffield to "varnish the business to the ladies; yet I am afraid it will become public," as if anything could any longer conceal the existence of this monstrous chimera. It is hardly credible, but Gibbon had had

his hydrocele since 1761; thirty-two years; yet had never even hinted of it to Lord Sheffield, with whom he had probably discussed every other single fact connected with his life; and had even forbidden his valet to mention it in his presence or to anyone else. He seems to have been ashamed of it; the historian who more than any other set Reason and Common-sense on their thrones. In 1761 he had consulted Caesar Hawkins, who apparently had not been able to make up his mind whether it was a hernia or a hydrocele. In 1787 Lord Sheffield noticed a sudden great increase in the size of the thing; and in 1793, as we have seen, it came to tragedy.

He was tapped for the hydrocele on November 14—the date to a day or so is uncertain; four quarts of fluid were removed; the swelling was diminished to nearly half its size; and the remaining part was a soft, irregular mass. Evidently there was more there than a simple hydrocele, and straightway it commenced to refill, so rapidly that they had to agree to tap it again in a fortnight. Mr. Cline must have felt anxious; he would know "how many beans make five" well enough; and his patient was the most distinguished man in the world. The fortnight passed and the second tapping took place, "much longer, more searching and more painful" than before, though only three quarts of fluid were removed; yet Mr. Gibbon said he was much more relieved than by the first attempt. Thence he went to stay with Lord Auckland at a place called Eden Farm; and thence again to Sheffield House. There, in the dear house which to him was his home, he was more brilliant than ever before. It was his "swan song." A few days later he was in great pain and moved with difficulty; the swelling again increased enormously; inflammation set in and he became fevered; and his friends insisted on his return to London. He returned in January, 1794, and reached his chambers after a night of agony in the coach; and Cline again tapped him on January 13. By this time the tumour was enormous, ulcerated and inflamed; and Cline got away six quarts. On January 15 he felt fairly well except for an occasional pain in the stomach, and he told some of his friends that he thought he would probably live about another twenty years. That night he had much pain, and got his valet to apply hot napkins to his abdomen; he felt that he wished to vomit. At four in the morning his pain became much easier; and at eight he was able to rise unaided, but by nine he was glad to get back into bed, though he felt, as he said, *plus adroit* than he had felt for months. By eleven he was speechless and obviously dying; and by one p.m. he was dead.

I believe the key to this extraordinary and confused narrative is to be found in the visit to Caesar Hawkins thirty years before, when that competent man was unable to satisfy himself as to what the swelling was. It is now clear that it was both a hernia and a hydrocele; and Gibbon, who was a fat man, with a rather pendulous abdomen, lived for thirty years without taking any care of it. But he lived very quietly; he took no exercise; he was a man of calm, placid and unruffled mind; and probably no man was ever less likely to be incommoded by a hernia, especially if the rupture had a large wide mouth. But the time came when the intra-abdominal

pressure of the growing omentum became too great and the swelling enormously increased, first in 1787 and then in 1793. When Cline tapped the swelling first, he was obviously aware that there was more present than a hydrocele, because he told Gibbon that he would have to wear a truss afterwards; and moreover, although he withdrew four quarts, yet the swelling was only reduced by a half. Probably the soft, irregular mass which he then left behind was simply omentum which had come down from the abdomen. But why did the swelling begin to increase again immediately? That is not the usual way of a hydrocele, whose growth and everything connected with it is usually of the most leisurely description. Could there have been a malignant tumour in process of formation? But if so, would that not have caused more trouble? However, the second tapping was longer and more painful than the first, though it removed less fluid; and Gibbon was more relieved. But this tapping was followed by inflammation. What had happened? Possibly Cline had found the epididymis; and probably his trochar was septic, like almost all other instruments of that pre-antiseptic period; at all events the thing went from bad to worse, grew enormously and severe constitutional symptoms set in. The ulceration and redness of the skin, no doubt filthy enough, surgically speaking, after thirty years of hydrocele, look uncommonly like suppurative epididymitis, or suppuration in the hydrocele. Thus Gibbon goes on for a few days, able to move about, though with difficulty, till the last night, when he seems to have cheered up and to be recovering; then falls the axe suddenly and he dies a few hours after saying he hoped to live twenty years.

Could the great septic hydrocele, connected with the abdomen through the inguinal ring, have suddenly burst its bonds and flooded the peritoneum with streptococci? Streptococcal peritonitis is one of the most appalling diseases in surgery. It spreads with the rapidity of a grass-fire, and its symptoms are vague; after a section the patient suddenly feels exceedingly ill, the abdomen is distended; there is a little lazy vomiting, the pulse goes off in a few hours, and death occurs rapidly while the mind is yet clear. The surgeon may call it shock, or heroin poisoning, or blame somebody else; but the real truth is that streptococci have somehow been introduced into the abdomen and have slain the patient without any opportunity for the formation of adhesions. In this form of peritonitis no adhesions are formed. That is what I believe happened to Edward Gibbon, though I admit it is a little difficult to fit in all the facts without having seen the patient.

The loss to literature through this untimely tragedy was, of course, irreparable. Gibbon had taken twenty years to mature his unequalled literary art. His style was the result of unremitting labour and exquisite literary taste; in my opinion no other man has ever approached the summit on which Gibbon sits crowned; and though we might not have had another "Decline and Fall of the Roman Empire," yet we might reasonably have looked for a completion of that autobiography which had such a brilliant beginning. What would we not give if that cool and appraising mind, which had raised Justinian and Belisarius from

the dead and made them to live again, could have left us its impressions of the momentous period in which it came to maturity?

Reports of Cases.

HERNIA OF VITREOUS INTO THE ANTERIOR CHAMBER.¹

By J. Lockhart Gibson, M.D. (Edin.), M.R.C.S. (Eng.),
Brisbane.

A boy (A.E.), now aged 11 years, who had been treated by me at the Hospital for Sick Children at the age of 4 years in 1913 for an injury to the right eye, was again admitted in January, 1918, on account of a second injury which had been received a month before.

In 1913 the right eye had been struck by a piece of wood. There was a penetrating wound at the inner corneal limbus, which contained a splinter of wood and through which iris had prolapsed. The splinter of wood was removed and the prolapsed iris snipped off. The wound healed and, except for a coloboma, the eye appeared to recover completely and to have excellent sight. When admitted in January, 1918, at the age of 9 years, there was a history of a blow on the right eye by a gymnastic ring. Since then the eye had not seen well and had a peculiar appearance.

Upon examination it was noted that there had been rather a broad rupture of the iris at its base inferiorly, not reaching as far inwards as the coloboma and that through this a jelly-like body appeared to have advanced into the anterior chamber, pushing the iris upwards and causing the coloboma and pupil to become consequently narrowed. At first I concluded that the jelly-like body consisted of a partial displacement of a very jelly-like lens through the ruptured iris into the anterior chamber. It was quite evident that if the body was the lens, it was not the whole lens. I had observed, when removing the lens of a young child by an ordinary cataract incision on account of the presence in it of a small piece of stone, that the lens came out whole and, like a jelly, capable of having its shape altered by pressure. It seemed, therefore, possible that the body in the anterior chamber, which was certainly jelly-like and nearly clear, but becoming less so, might be a partially displaced lens.

I had the child anesthetized and introduced a discission needle to break up the lens, if it were one, and to cause it to dissolve. As soon as my needle entered the body and tried to tear its capsule I found that it was not the lens, but had all the characters one would expect from a vitreous displaced in its hyaloid membrane into the anterior chamber. I, of course, desisted from further interference then.

The boy has been seen at long intervals since and when he came last week I decided to show him as an example of what must be a very unusual condition. I do not remember to have seen it described in any journal.

It is to be noted that the displaced vitreous has passed into the anterior chamber through a fairly broad rupture of the base of the iris and that the hernial neck, therefore, is broad, that the hernia itself is not quite a clear jelly, being slightly grey, that the pupil and coloboma have been narrowed considerably, owing to pushing up of the iris below the pupil, and that the pupil, though slit-like, is quite black. A good view of the fundus could be seen through it in 1918. It would require dilatation to admit of a good view now. Refraction was practically emmetropic in 1918, which confirmed the conclusion that the lens had not been dislocated from its position. The eye has given no trouble. It is true that in the last two years the hernia has increased somewhat (to the size of one-third or one-half of a lens), but without irritation. The eye is not a disfigurement. I have thought it almost certain that any attempt to remove the hernia from the anterior chamber would result in disaster. It has, of course, occurred to me to introduce a Graefe's knife across the chamber and cut downwards through the neck of the sac, parallel to and close to the iris and then

¹ Read at a meeting of the Queensland Branch of the British Medical Association on April 5, 1920.

to remove the displaced vitreous, but I cannot think that this would have any result but a fresh protrusion of vitreous into the anterior chamber, i.e., if it did not lead to loss of the eye. The eye still sees fingers at some yards. I have not estimated its actual vision lately.

Reviews.

THE GREAT WAR AND THE R.A.M.C.

"The Great War and the R.A.M.C." by Lieutenant-Colonel F. S. Brereton, R.A.M.C., the first volume of the "Popular Medical History of the War," is a graphic account of the work of the medical services in France during the initial stages of the great war, from the commencement of mobilization on August 5 until the battle of the Aisne at the latter part of September, 1914. The pre-war organization of the Army Medical Service is first outlined and the course of a wounded man from the front line to England is described in detail. The history of the medical units accompanying the original divisions which proceeded to France and first encountered the enemy with the Cavalry Division in the neighbourhood of Mons from August 20 to 23, 1914, is of absorbing interest. The narrative of the movements and adventures of the field ambulances from this time onward during the great retreat and the battles of Mons, Le Cateau, the Marne and the Aisne is vividly portrayed and amply corroborated by extracts from the diaries of many of the medical officers concerned. The difficulties caused by the absence of motor transport and the total inadequacy of horse transport were early demonstrated during the retreat. It is pointed out that this difficulty had indeed been anticipated by the medical services, but owing to financial and other considerations motor transport was not provided. The heroic conduct of officers and men of the Royal Army Medical Corps during the succeeding weeks forms a story of self-sacrifice and devotion only equalled by the heroism of the combatant units during the dark days of 1914. Brief accounts of the general military situation are given from time to time, so that it is possible for the reader to reconstruct the positions and comprehend the almost overwhelming difficulties which confronted the medical services until motor transport was forthcoming. It was not until September 16 that evacuation by motor ambulances commenced to be systematically organized. The official report to the British Government on the epidemic of typhus and the horrors of the German prison camp at Wittenberg forms the subject of an appendix.

The book is admirably written and should prove of intense and absorbing interest, not only to medical officers, but to the general public. It is a record of devotion to duty and sterling endeavour against almost overwhelming odds which should stir the heart of every man and woman in the Empire.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A meeting of the Senate of the University of Sydney was held on Monday, April 12, 1920, at University Chambers, Phillip Street, Sydney.

The Honourable Mr. Justice D. G. Ferguson was re-elected Vice-Chancellor.

The following standing committees were appointed:—

Finance Committee: The Chancellor, the Vice-Chancellor, the Warden and Registrar, His Honour Judge Backhouse, the Honourable H. Y. Braddon, Mr. F. Leverrier, Dr. Cecil Purser, Mr. J. J. C. Bradfield, during the absence of His Honour Judge Backhouse.

Buildings and Grounds Committee: The Chancellor, the Vice-Chancellor, the Warden and Registrar, His Honour Judge Backhouse, Mr. Bradfield, Mr. F. Leverrier, Mr. J. Nangle, Dr. Cecil Purser, Professors Warren and Wilkinson.

By-Laws Committee: The Chancellor, the Vice-Chan-

cellor, the Warden and Registrar, His Honour Judge Backhouse, Mr. Leverrier, the Honourable D. Levy and Professor Peden.

Organ Committee: The Chancellor, the Vice-Chancellor, the Warden and Registrar, His Honour Judge Backhouse, Professor Fawcitt, Mr. F. Leverrier, the Honourable Mr. Justice Street.

The Committee of Management of the Sydney Biological Station: The Dean of the Faculty of Science, the Professor of Botany, the Professor of Zoology and Professor Haswell.

The draft annual report was adopted.

The Sydney University Medical Society wrote, advising the establishment of a memorial to perpetuate the memory of Sir Thomas Anderson Stuart and asking that two representatives of the Senate should be appointed on the executive of the fund. It was resolved that Professor Wilson and Dr. Cecil Purser be appointed.

The following appointments were made:—

Demonstrators—Chemistry: Mr. A. C. T. Kellick, Mr. A. J. Robson, B.Sc., Mr. C. V. Ferris, B.Sc., Mr. M. C. Fleck, B.Sc., and Mr. A. G. Duncan.

Demonstrator—Anatomy: Dr. F. A. Maguire (half-time).

Demonstrators—Anatomy: Drs. J. C. Storey, H. R. G. Poate, H. Rutherford Darling, L. G. Teece and B. T. Edey (part-time).

Demonstrators—Anatomy: Mr. J. I. Hunter and Miss Una L. Fielding, B.Sc. (full-time).

Physics Department: Messrs. S. R. Bilbe, Johnston and T. R. Mason.

On the recommendation of the Scholarship Committees the following scholarships were awarded:—

(a) **Cooper Graduate Scholarship:** Mr. D. Radford, B.A..

(b) **Barker Graduate Scholarship:** Mr. M. H. Beltz, B.Sc..

The Professorial Board reported that Professor W. H. Warren had been elected Chairman of the Board.

The Faculty of Medicine reported that Professor J. T. Wilson, M.B., Ch.M., F.R.S., had been elected a Fellow of the Senate under provisions of the *University Amendment Act, 1912*, and By-law Chapter II., Sections 9 and 10.

On the recommendation of the Faculty of Science, the following scholarships were awarded:—

John Coutts Scholarship: Miss Alice M. Sandon.

Deas Thomson Mineralogy Scholarship: Miss Mary M. Lingham.

THE UNIVERSITY OF WESTERN AUSTRALIA.

At the annual meeting of Convocation of the University of Western Australia, which was held on March 29, 1920, Mr. W. H. Shields moved:—

That this meeting of convocation is of opinion that it is most unfortunate and against the best interests of the State that students should have to be refused admission to the University through lack of funds. It consequently recommends that the Government be asked to subsidize the University by a *per capita* grant based on a reasonable interpretation of the present lump sum grant, as distributed over the average enrolment of students during the first three years of the University's existence.

The Warden, Mr. J. S. Battye, stated that the University derived a revenue of about £500 a year from the endowment lands. After considerable discussion it was decided that the motion be sent to the Senate and that the Senate be requested to join Convocation in placing their views before the Premier.

Dr. A. H. J. Saw was unanimously elected Warden of Convocation for the ensuing year.

In our article dealing with the probable effects of the new tariff on the cost of bacteriological products and sera, published on April 3, 1920 (page 315), the statement appears that the cost of 10,000 units of concentrated anti-toxin prepared by H. K. Mulford Company is £1. We are informed that the price is 16s..

We learn that the Venereal Diseases Depôts established in the Commonwealth during the war under the Army Medical Service have, with the exception of the Depôt at Langwarrin, Victoria, been closed.

¹ The Great War and the R.A.M.C., by Brevet-Lieutenant-Colonel F. S. Brereton, R.A.M.C.; 1919. London: Constable & Company, Limited. Sydney: Angus & Robertson, Limited; pp. 300, with 9 maps, 1 plan and 2 appendices. Price, 16s..

The Medical Journal of Australia.

SATURDAY, APRIL 24, 1920.

The Congress.

The Australasian Medical Congress which will be held in Brisbane this year from August 23 to 28, promises to be a landmark on the road. These important meetings have been interrupted by the war, because a very large proportion of the members of the medical profession were absent on active service. The usual three years' interval has been extended to six. A vast experience has been crowded into those six years and all this experience is still fresh in the minds of those who enlisted in the Naval and Military Medical Services. It will be a Post-War Congress; an opportunity for Naval and Military surgeons to record what they have learned and to add to a science which prior to the war was scarcely a practical subject with Australian practitioners. It is anticipated that many of the men who served, will make an effort to be present. The attraction will be great and to the majority irresistible. In the first place, it will be unique *réunion* for Army Medical Corps men, for those who participated in the greatest adventure of all times and who lived for months and years under the most abnormal conditions, devoid of even rude comforts and of even moderate safety, working under conditions of incredible stress and achieving unexampled success. When the next Congress meets, there will not be the same mental attitude. At Brisbane there will be a fleeting chance for men who lived together and suffered together, who made light of their hardships because they were shared by all alike, to meet in comfort and in peaceful surroundings. Such a chance will not offer itself again.

There is another reason why every returned man should attend the Congress, if he can possibly free himself from his professional ties for a brief week. Hitherto the records of the work undertaken on active service have appeared in these and other medical columns spasmodically and without order or sequence. It has been impossible to collect the opinions, observations and experiences of a large section of medical officers on the various parts of the work of the medi-

cal services. It is true that extremely valuable discussions on war subjects have taken place at the meetings of the Branches of the British Medical Association in the several States, but these discussions have been limited to relatively few men and they have more often than not taken the form of endeavours to apply the lessons of the war to the conditions of civil practice. Two important events will shortly take place in the Commonwealth in connexion with the Australian Army Medical Corps. The first is the compilation of an Australian Medical History of the War and the second is the re-organization of the Australian Army Medical Corps. Both should be undertaken in a manner calculated to enhance the efficiency of the service in case of future need. Both will help to strengthen the bulwarks of the Empire. The Naval and Military Section of the Congress can contribute material for use in these two undertakings. The guidance of men who have taken an active part in the great work and who have overcome almost insuperable difficulties, will be of the greatest value to the writers of the history and to the re-organizers of the services. This guidance will be doubly valuable if the discussions are full and free and if the councillors are numerous. The subjects should include matters appertaining to service conditions and the organization of units, of branch services and of service staffs. The difficulty will be rather to select wisely the subjects for discussion than to seek something to debate. For these reasons young graduates, men who had some civil experience and senior practitioners will, we are convinced, journey to Brisbane to meet their one-time comrades on "the other side" and to utilize the short hours in a healthy and important interchange of opinion.

The Brisbane Congress will be remarkable for yet another reason. The Section on Tropical Diseases will make full use of the opportunities offered by the *siège* of the Congress. It is anticipated that the discussion on the physiological aspect of the white Australia problem will awaken intense interest, not only within the medical profession, but also throughout the whole community. The practitioners of the north will be, as it were, in the lime light. Members from the temperate regions of Australia will look to these experienced practitioners for information and for

instruction. The Queensland practitioners will surely meet a critical audience and the resulting discussion should be of unusual interest.

These circumstances will suffice to make the Brisbane gathering a memorable one—possibly a unique one. It will have a further attraction to a considerable section of the medical profession in Australasia. It is probable that the future of the Congress will be decided finally at the meeting. Those who will determine its destiny, will come with well-considered plans and there will be no new ideas, hastily thrown before a meeting unprepared to recognize their significance. The members who regard the Congress as a valuable instrument, should go to Brisbane ready to assist in the formation of a wise decision, so that the nature of these meetings in the future may be for the benefit of the medical profession and of the Australian community. We would urge everyone to make immediate arrangements to be in Brisbane during the Congress week. The sooner members intimate to the local Secretaries their intention to attend and apply for accommodation to be reserved for them and their wives, the fewer will be the disappointments. In a short time the second circular will be issued with fuller information concerning the general arrangements that are being made for the convenience of members.

UNDERGROUND INFLUENCE.

Prior to the war the medical profession in the Commonwealth met on friendly terms certain foreign medical practitioners who had preferred to practise in a strange land rather than in their own. These men received many kindnesses from Australian practitioners and were assisted in numerous ways. Some of the Germans practising medicine before 1914 in our chief cities laid claims to special knowledge and special skill, but in no single instance was the verdict of the best judges, the medical practitioners themselves, favourable. In Brisbane, Dr. Eugen Hirschfeld was admitted to many positions of importance, not because of his eminence in his profession, but for other reasons. He was a member of the Medical Board under a deplorably antiquated Medical Act. He was accorded most generous treatment by the Brisbane practitioners

and was accepted as a colleague. This man held the position of German Consul. During the course of the war the authorities found it necessary to deprive Eugen Hirschfeld of his liberty. His presence was regarded as a danger and a menace to Australia and to the Empire. They put him under a military guard in a concentration camp. It is stated that he secured his temporary release on the plea of ill health. It is further stated that this alleged ill health was based on the presence of albumin in his urine, but that the albumin was derived from the poultry farm. Be this as it may, the plea of illness did not suffice to keep him out of the internment camp for long; he was soon marched behind the barbed wire entanglement. In the meantime the Medical Board took a very sensible course and removed his name from the Medical Register. He was not wanted within the medical profession and many loyal subjects of His Majesty held that he was not wanted in the Commonwealth. Rumours were abroad that influence was being brought to bear on the authorities to secure his release at the termination of hostilities. The Queensland Branch of the British Medical Association, having regard to the fact that something of a serious nature must have taken place to justify his internment, begged the Department of Defence to rid Australia of his undesired presence. In January of the present year, the Commonwealth authorities, while boasting loudly of solicitude for the welfare of Australia and Australians, without explanation and without excuse, permitted the ex-German Consul to pass again into the Australian community. Protests apparently had fallen on deaf ears.

A similar and even more glaring disregard of the dictates of common sense has recently aroused much bitter feeling in Sydney. A Dr. Max Herz posed as a respectable medical practitioner before the war. He had some skill as an orthopaedic surgeon, though he certainly was far from being an authority in this specialty or from being regarded as an eminent practitioner. He had previously been in New Zealand, where, it is stated, he revealed some aptitude as a student of sociology. During the early stages of the war his conduct was highly offensive to all loyal citizens of the Empire. It is not improbable that he was regarded as a dangerous enemy, for he was sent to a concentration camp and was thus rendered harmless

for a time. The authorities granted him privileges at first. He was allowed to visit patients, but was kept under supervision of a guard. Later this privilege was withdrawn. The authorities know best why. Still later he was de-naturalized; his right to the advantages of citizenship was removed. Those who had been kind to him before the war, resented his overbearing conduct at a time when the fate of the British Empire, of the whole world, was in the balance. There was unanimity in the medical profession in New South Wales that Max Herz was not wanted. The New South Wales Branch of the British Medical Association asked for his repatriation to his own country. A reply was received from official sources to the effect that this man was about to be repatriated. Later the name of the transport was mentioned which was to remove this undesirable and possibly dangerous individual from Australia. There seemed to be no reason for anticipating further difficulty. Max Herz was removed from the concentration camp and was taken to Melbourne. Some persons sought to obtain his release. This irresponsible action is said to have been based ostensibly on the claim that his skill was needed for Australia. Even if Max Herz had been especially skilled as an orthopædic surgeon before 1914, a contention we are not prepared to admit, his claims to-day, after the vast experience of our own men in the field and at the base, in our Australian military hospitals and in our civil hospitals, could not be upheld. The authorities made it known that his application for release had been refused. Even the most casual observer would have realized that no other decision could be defended. Max Herz refused to board the ship, on the ground that its destination was Java. Legally he should have been deported to Germany. His refusal was therefore legally correct. The authorities, instead of pushing him off in the next ship to Europe, so that he might find his way to his own country, made the fatal error of sending him back to the concentration camp and on April 9, 1920, granting him his freedom. Would an Australian have been successful in resisting deportation from Germany in similar circumstances?

There are other German medical practitioners whose conduct during the war called for stringent measures.

Our own men have bled in the cause of right; they have given up all they had to help the allied forces to gain a victory, which means everything to those who live under the British flag. We have a right to claim that in Australia those whose conduct was disloyal to the King and country, shall not be allowed to worm themselves in between the men who served and their erstwhile patients. There is no sound argument in favour of being magnanimous to those who rejoiced when the enemy seemingly gained a temporary advantage over our troops, who gloated over the sinking of the *Lusitania* and who made themselves hateful to the people of their adopted country. There is only one reply to such flagrant abuse of frank and kindly hospitality. They must be turned adrift, somewhere—anywhere beyond the confines of the sunny Commonwealth. We have no space for them here.

EFFICIENCY OF CHILDREN.

Medical inspection of school children has been introduced as a means of improving the general state of the young and more especially of eliminating those deleterious associations which tend to disturb the power of the children to assimilate knowledge. It was found that the most practical manner of attacking this problem was to ascertain the presence of certain defects and to institute such general measures as might be expected to reduce the more common and handicapping of the defects. The medical inspector kept a record of the frequency of defects of vision and of hearing, of enlarged tonsils and hypertrophied adenoid tissue in the naso-pharynx, of carious teeth, of signs of uncleanness as evidenced by parasites in the hair, of manifest anæmia, tuberculosis, heart disease, scoliosis and other serious diseases and unmistakable mental and nervous defects. It was soon recognized that valuable information could only be collected if the whole school population were examined and the practical problem were faced whether it would be preferable to achieve this end by means a mass examination on a stereotyped plan or to relinquish the ideal of covering the whole school population in order to retain completeness and thoroughness in the examination. It is well known that it is more difficult and requires a longer time to determine that a pathological condition or a develop-

mental defect does not exist than to make a positive diagnosis of the presence of the one or other. The careful practitioner spends a considerable time over the examination of a patient who deliberately seeks his advice on account of some obtrusive symptom. The medical referee is required to spend time and to exercise the utmost care in the examination of a proponent for life insurance, because it has been found that casual or hurried inspection involves the companies in avoidable risks of pecuniary loss. Notwithstanding these facts the school medical inspectors have evolved a scheme of work by means of which the inspection can be carried out at a rapid pace. Much skill can be gained by practice, but the skill at best is revealed in the detection of obvious defects and reliance cannot be placed on the interpretation of the physical signs.

The system now in general use has served its purpose and is in need of modification. It is no longer necessary to ascertain the relative frequency of defects of vision and of hearing or the incidence of hypertrophied tonsils. The school medical service should not be regarded as a substitute for treatment by the general practitioner. It is universally admitted that the State is concerned in the physical efficiency of the community as a whole. From an economical point of view, all measures which can raise the efficiency of the individual, will make for the prosperity of the nation. The health departments are charged with the duty of endeavouring to eliminate removable factors undermining the health and vigour of the race. The school medical service has an infinitely more fertile soil upon which to work. The aim of the school hygienist should be to ascertain the influences which lead to the deterioration of mental and physical efficiency, and to apply those measures of mass amelioration which can be adapted to groups of children. In the first place it is essential to set up a standard of normal development of children. Many efforts have been made to achieve this end. In October, 1919, a valuable discussion on the subject took place at the Medical Officers of Schools Association in Great Britain and Dr. A. A. Mumford, of Manchester, described a scheme which met with general approval. He divided the life of the child into six periods, from 2 years to 6 years, from 6 to 10, from 10 to 12, from 12 to 14, from 14 to 16 and from 16 to 18 years.

For each age period he drew up a standard under six headings as follows: (i.) General conditions which express the health, vigour and growth natural to the age; (ii.) physiological description of the degree of activity in the heart, lungs and other organs whose proper functioning is necessary to the maintenance of the full powers of the body; (iii.) physical activities or attainments which indicate the degree of vigour and activity of the body and the limbs; (iv.) pathological signs or symptoms which indicate damage by disease or accident to particular parts; (v.) emotions and instincts proper to the age period whose activity is necessary for complete visceral function, and which set free the energy needed for the accomplishment of difficult purposes; (vi.) characteristics of the physical training likely to be most beneficial in calling out natural powers and unlikely to cause over-pressure or strain (*School Hygiene*, February, 1920). It will be noted that Dr. Mumford wishes to introduce into his standard measurements of fatigue and estimations of emotional qualities which influence the occurrence of fatigue profoundly. The scheme is capable of extension and of improvement and for practical purposes should be made to include a standardization of mental attributes, such as power of concentration, ability to observe and to remember, capacity to profit from experience and discrimination between right and wrong. With a satisfactory standard, children could be classed into groups and the school course modified to suit the requirements of each group. Remediable physical defects, especially those which are held to interfere with the physical and intellectual development of the children, should be handled in a way calculated to raise the efficiency of those handicapped in this manner. A child whose defective vision prevents its normal progress in school, should be required to have the defect remedied. The child should be excluded from the ordinary class until proper spectacles have been provided. The onus lies on the parents, but in the case of families unable to meet the expense, assistance should be rendered by the State. Similarly a child whose pulmonary ventilation is limited by obstructing tonsils or adenoid vegetations, should not be allowed to disturb the normal routine of the class. Exclusion from the class until the offending tonsil has been removed is necessary in the interests of the other children and enables the

school authorities to insist on proper treatment being carried out. When the defect cannot be completely removed, the child should be drafted into a special school, so that special methods could be adopted for the instruction of short-sighted children, of deaf children, of children with under-developed muscles and of children with mental defects. In short the school medical inspection should be used primarily for the classification of children and for the re-arrangement of the children into special schools or classes adapted to the physical and mental characters of each group. The medical officers would work in combination with the teachers and the physical trainers, so that each child should be given the best chance possible to attain the normal level of physical and mental efficiency by the time it reaches adolescence.

APPLIED HYGIENE IN THE TROPICS.

A committee has been formed for the purpose of encouraging international medical research for the eradication of disease. This committee is apparently concerned itself largely with the problems of applied hygiene in the tropics. A circular has recently been issued by this committee.¹ The circular has special reference to Australian conditions, as will be seen from the opening sentences. "Commerce cannot exist without industries, nor industries without raw materials. A large proportion of the raw material of international commerce is produced in the tropics. In certain tropical areas epidemic diseases trammel and at times seriously hamper economic and commercial projects. From lack of suitable labour large areas in the tropics which should be sources of raw material, remain unutilized. Under recent peace terms, Great Britain, its overseas dominions, France and Japan have incurred increased responsibilities in the development of tropical areas."

The committee proceeds to set out some of the views of its members concerning the problems involved in this necessary development of tropical areas. It is stated that in many instances, it is necessary to import labourers from other tropical areas to carry out the work in districts of potential fertility. To safeguard this immigrating and emigrating population a great deal of medical and sanitary research work must be carried out. It is recognized that increased facilities of intercommunication mean the interchange of diseases and their dissemination. The following elementary precautions are demanded. The areas from which labourers are recruited, must be sufficiently under the control of applied hygiene to prevent, within the limits of recognized science, disease peril to the country receiving them. In the second place, at the point both of departure and of arrival, the labourers must be subjected to skilled scrutiny as to physical fitness and freedom from

morbid conditions. The third precaution is that the hygienic requirements of sites, dwellings, food, labour and disease prevention must be met locally. It is held that there should be organized sanitary and research staffs in the countries concerned and particularly at their ports. The data collected concerning the incidence of disease and the knowledge evolved by research should not be retained by any section of the community or any one nation; it must be communicated to all other nations of the world. The committee appeals for voluntary assistance from those who recognize the economic value of a safe and rapid development of tropical industry. In the past this form of work has been accomplished to a great extent by private individuals at great personal risk and at considerable personal expense. While commerce has reaped the benefit, no reward or remuneration has been offered to those who have rendered its development possible. A brief account of the achievements in the Panama Canal zone is recited. It is told how the French between 1881 and 1889 lost 22,189 of the workers by death. This number represents 24% of the employed. One thousand West African negroes were transhipped to the Panama and in six months all were dead. The same number of Chinese were used with the same result. Under the Americans, and particularly as a result of the advice and work of Gorgas, yellow fever has been stamped out. There has been no case of this disease in the zone since 1906 and in 1918 the death rate had been reduced to 8.1 per thousand of population.

The committee compare the state of affairs in the Panama with that of other tropical districts. It must be remembered that the Panama was a deadly zone. It is now remarkably healthy. The death rate in the Lampong district of Sumatra is stated to be as high as 90 per thousand of population. In 1917 the death rate on the Ceylon estates was about 36.4 per thousand of population. Applied hygiene has reduced the incidence of malaria in certain parts of British Guiana to one third of its former level. In North Borneo the death rate in some carefully managed estates is as low as 10 per thousand; in other, less well-controlled estates it is still as high as 72. The measures adopted in the Rand to reduce the incidence of pneumonia and in the Philippine Islands to eradicate ancylostomiasis are illustrations of what is meant by applied hygiene. India is still the despair of the tropical hygienist. It is stated that over 380,000 persons emigrated from one Presidency in 1916 and in the same year no less than 277,000 immigrants entered the same Presidency. The Indian problem is rendered intensely difficult by the vast movement of the population. In 1917 there were over 267,000 deaths from cholera in British India, over 62,000 deaths from variola, over 437,000 deaths from plague and over 4,555,000 deaths from malaria and other fevers. The number of lepers in India is estimated at 150,000. Tuberculosis, bilharziosis, enteric fever and many other diseases have to be taken into account. The committee make no special reference to Australia, but the prevalence of tuberculosis in the Gilbert and Elllice Islands is noted.

In August the members of the Australasian Medical Congress will discuss the subject of the development

¹ *The Journal of Tropical Medicine and Hygiene*, February 16, 1920.

of tropical Australia by means of the labour of the white man. Whatever determination is reached, one thing is clear. It is that more people and greater energy must be provided for the vast, rich districts which now yield but a fragment of the wealth lying dormant and unsought. The world has need for as much as Australia can produce and this need is urgent. If white or coloured immigrants are to work in our tropical regions, we must participate in this international endeavour to base developmental work on sound, scientific applied hygiene.

THE CLINICAL EVALUATION OF DISEASES OF THE HYPOPHYSIS.

Very little is known of the physiology of the pituitary gland, and still less accurate information has been collected concerning the chemical and biological characters of the pituitary hormones. Clinicians have taken a great deal on trust when they accepted pituitary extracts as therapeutic agents. The experiments in the laboratory and the observations in the clinic are, however, gradually gathering together scraps of knowledge which eventually will be pieced together to make a consecutive story. One of the difficulties in the study consists in the fact that an organic or functional disturbance of the hypophysis leads to a throwing out of gear of the whole of the metabolism governed by the glands of internal secretion. It is therefore impossible in the clinic to differentiate between those signs and symptoms which are directly due to changes in the hypophysis from those which are due to the secondary changes of function of the other ductless glands. As long ago as 1890 von Mering and Minkowski demonstrated the fact that removal of part or the whole of the pancreas resulted in the increase in the amount of glucose in the blood and its appearance in the urine. Since then it has been shown that the amount of sugar held in the blood is increased in disturbances of the thyroid gland. The same has been shown to apply to the pituitary. This information is of practical value in the diagnosis of lesions of the pancreas, thyroid gland and pituitary gland. In all three the sugar tolerance is affected. The differentiation between hyperthyroidism and pancreatic diabetes is usually not difficult, more particularly because hyperthyroidism is recognized only when it is associated with enlargement of the thyroid gland. It is possible that as clinicians utilize the sugar tolerance test more widely, functional disturbances of this gland will be discovered in the absence of palpable enlargement. The differentiation of disturbances of the pancreas from those of the pituitary is also effected in many instances by signs pointing plainly to hyperpituitarism or hypopituitarism. Again the sugar tolerance test may prove a valuable method of indicating early changes or changes not manifested by ostensible gross lesions in the gland. Dr. C. P. Howard has recently called attention to a refinement of differential diagnosis introduced by Csépai and has published the results of his own observations on six cases.¹ He does not question the doctrine that hypertrophy of the *pars intermedia*

gives rise to polyuria, diminished sugar tolerance and in severe cases to glycosuria, and that degenerative changes of this part of the hypophysis are associated with an increase in sugar tolerance which may attain a high degree. The sugar tolerance was diminished in two cases of acromegaly, in one of secondary hyperpituitarism and in two cases of *dystrophia adiposogenitalis*. When the pituitary gland is involved in sarcoma or subjected to pressure from a new growth in the neighbourhood or from generally increased intracranial pressure, the sugar tolerance is increased. In spite of the claim put forward by some observers that a slow return to normal after the artificial production of hyperglycæmia and glycosuria is pathognomonic of hyperpituitarism, the sugar tolerance tests recited by Dr. Howard merely gave an indication that the hypophysis was probably involved. Csépai found that the response to adrenalin and to pituitrin applied to the conjunctiva and subcutaneously was characteristic in disturbances of the two glands. Dr. Howard has employed these tests and has controlled the results by tests carried out in persons not suffering from affections of the ductless glands. He has come to the conclusion that the adrenalin conjunctival test may be of value in certain cases of dyspituitarism. Csépai claims that exaggerated blanching of the conjunctiva, lasting for over twenty minutes, indicates a diminished function of the adrenal glands. Dr. Howard found that the test yielded normal results in four instances, and was followed by prolonged blanching in one case of acromegaly and one of hyperpituitarism. From the examination of the hypophysis after death, it appeared that there was hyperæmia of the entire gland and hæmorrhages into the *pars nervosa*. In the next place he was unable to satisfy himself that the subcutaneous tests with adrenalin yielded any accurate information in his cases. The conjunctival and subcutaneous tests with pituitrin proved equivocal and he was unable to confirm Csépai's findings in this regard. He mentions one important point that should be borne in mind in connexion with the diagnosis of hyperpituitarism. This may arise as a result of increased intracranial pressure from tumours situated elsewhere than in the hypophysis. It would, therefore, appear that the application of adrenalin or pituitrin, either to the conjunctiva or subcutaneously, does not afford reliable information concerning the state of the function of the hypophysis.

TYPHUS FEVER IN POLAND.

A vivid picture of the conditions found by the Medical Commission of the League of Red Cross Societies during the visit to Poland is published by Captain J. T. Marshall, as an addendum to the report of the Commission.¹ The account is full of interesting details and discloses the most terrible conditions even more eloquently than the matter-of-fact description given in the official report. We cannot reproduce in this place the fascinating narrative of the first steps taken by the Commission in their work of succour. (see *The Medical Journal of Australia*, December 13, 1919, page 512). There are, however, a

¹ *The American Journal of Medical Sciences*, December, 1919.

¹ *Bulletin of the League of Red Cross Societies*, November, 1919.

few details to which attention may be drawn. The accounts published in the daily Press are often so inaccurate and exaggerated that it would be unsafe to place any reliance on them. The details in Captain Marshall's account may be accepted as accurate, and no hesitation need be felt in accepting his statements. The cost to Poland of the war has been incredible. It has been estimated that 325,983 houses and habitations have been destroyed in Congress Poland and 437,799 in Galicia. Starvation had reduced the war-ridden people, and it is small wonder that typhus fever claimed 124,620 victims in Congress Poland and 21,208 in Galicia between January 1 and July 27, 1919. Notwithstanding the fearful conditions, the Polish spirit has survived the trials of the war period and the people are doing their best to help themselves. At Warsaw the usual population of a million people has swelled into half again as many. Refugees crowd from outside and produce added difficulties in the problem of finding food for everyone's needs. The greater part of the peasant population is infested with lice. Steam disinfectors have been set up and a well-organized plan of "delousing" instituted. Unfortunately, the task has become almost impossible, owing to the fact that soap is practically unobtainable in Warsaw. At Lublin the population has shrunk by over a third. There are no attractions for a starving people there. Those who seek assistance, are in rags, without food and in need of medical attention. At Kowel there are 14 doctors to a population of 24,000 inhabitants, but in the surrounding district, with a population of 200,000, there are only two medical practitioners.

At Kowel the Commission visited the old Russian barracks which now serve as prisons. There were several hundred Bolshevik prisoners. The majority were mere boys with no distinct uniform and many were barefooted. It was difficult to distinguish the officers from the common soldiers. They had one character in common; they had a sullen, resentful look about the eyes. Their level of intelligence was unmistakably low; some looked imbecile and others would pass as first class brigands. None of them had the look of men who could settle down to work and earn an honest living. During the occupation of the Rowno district by the Bolsheviks, venereal disease became practically epidemic, and more than half the population of 70,000 became infected. On this was grafted typhus fever, relapsing fever and dysentery. At Brody about 12% of the population has died of typhus since the autumn of 1919. Everywhere along the itinerary the Commission met disease, starvation and signs of oppression, and nowhere were there the means to help this unfortunate people to rise. In one district the refugees were forced to live on grass, bark, berries, wild apples and nettle soup. Captain Marshall states that these people are known as "human sparrows."

The League has set itself the task of providing relief. A ship with stores of the most essential materials has been dispatched. The Swedish Red Cross Society has equipped a mobile hospital and other Red Cross societies are following suit. The work is being carried out in earnest, not only in the interests of the afflicted race, but also to protect the whole of

Europe lying to the west of Poland, which stands in imminent danger of being devastated by typhus fever and the other scourges and pestilences now raging in Poland. There may still be time to achieve this.

RESULTS OF INFLUENZA INOCULATION.

A statistical record of the results of protective inoculation against influenza has recently been published by Sir William Leishman.¹ The question is obviously one of great importance, seeing that another wave of epidemic influenza may be liable to occur. A conference of bacteriologists was summoned by the Director-General of the Army Medical Services towards the end of 1918 to consider the advisability of employing a preventive vaccine. In view of the divergent opinions then held as to the bacteriology of the infection, the composition of the original vaccine recommended was as follows:—

<i>Bacillus influenzae</i>	60 millions	} in 1 c.cm.
<i>Streptococci</i>	80 millions	
<i>Pneumococci</i>	200 millions	

Several types and strains of each organism were used, all comparatively freshly isolated from cases of the disease. Two doses were recommended, the first of 0.5 c.cm. and the second, given after 10 days' interval, of 1 c.cm.. The statistical results recorded apply solely to cases treated by the vaccine prepared in accordance with the above formula. As a result of the experience gained during the progress of the recent epidemic the composition of the vaccine has since been modified as follows:—

<i>Bacillus Influenzae</i>	400 millions	} in 1 c.cm.
<i>Streptococci</i>	80 millions	
<i>Pneumococci</i>	200 millions	

This formula is now employed in the British Army. Every effort was made to avoid fallacies in the computation of statistics. The recording of pulmonary complications is stated to be probably lacking in uniformity, since different medical officers have taken different views as to the degree of bronchial or pulmonary involvement which should be regarded as a complication. Results are regarded as invalid unless the disease was actually present in a unit during the period under review. Observations were made of 15,624 men who were inoculated and 43,520 who were not inoculated. The results are represented as follows:—

	Men.	Ratio per 1,000.		
		Incidence of Attack.	Incidence of Complica- tions.	Deaths.
Inoculated	15,624	14.1	1.6	0.12
Not inoculated	43,520	47.3	13.3	2.25

Nearly one half of those inoculated (7,010) had received one injection of vaccine only, that is, one third of the amount considered necessary for effective protection. It is reasonable to assume that the protective results would have been still more evident, had all received the full dosage. Consideration of the table leads to the conclusion that in general the results are encouraging and tend to show that at least a moderate degree of protection against infection may be expected, while decidedly beneficial effects may be hoped for in a diminution of both the frequency and the gravity of pulmonary complications.

¹ "The Results of Protective Inoculation Against Influenza in the Army at Home, 1918-1919," *Lancet*, February 14, 1920.

Abstracts from Current Medical Literature.

PATHOLOGY.

(143) The Blood and Bone Marrow in Mustard Gas Poisoning.

E.B. and H.D. Krumbhaar (*Journ. of Med. Research*, September, 1919) found that the chief changes in the peripheral blood caused by "yellow cross" gas (mustard gas or yperite, with dichlor-ethyl-sulphide as the chief constituent) was a more or less extreme leucopenia which followed the initial leucocytosis and in severe cases frequently fell below one thousand cells per cubic millimetre. Severe leucopenia indicated a bad prognosis and persisting leucocytosis a good prognosis. The chief changes in the leucocyte count were due to variations in the polymorphonuclear elements, with disappearance of eosinophiles in the acute stages and temporary appearance of myelocytes. The period of highest mortality coincides with the most severe leucopenia. Examination of the bone marrow showed that attempts at blood regeneration were often entirely absent, nearly always slight or moderate and never to be compared with the amount of hyperplasia found in acute infections. It is believed that the blood and bone marrow changes are due to direct action of the poison and not to secondary infection. The authors consider that mustard gas exerts on the bone marrow a direct toxic action, which, by depleting the leucocytes of the circulation, has an important bearing on the inability to resist secondary infection that is found in that form of gas poisoning. This toxic action on the bone marrow is shown, not only by small areas of necrosis, but by an inhibition of the regeneration process. Not only is the amount of regenerative hyperplasia small in proportion to the severity of the process, but also the quality is inferior, that is, the great majority of the hæmopoietic cells present are of immature types.

(144) Necrosis of the Pancreas.

F. Parker (*Journ. Med. Research*, July, 1919) adopts the following classification of pancreatic necroses. (i.) Acute pancreatitis with fat necrosis caused by the action of the ferments liberated from the acinar cells. What causes this liberation is not clear, although in some instances backing up of bile due to some obstruction, usually a gall stone in the ampulla of Vater, apparently is a factor. It is doubtful whether necrosis precedes the liberation of the ferments or whether the ferments are set free first and then cause the necrosis. The latter view seems to be the correct one, as fat necrosis does not occur in the two next types where necrosis of the acinar cells is marked. The liberated ferments attack the fat tissue, causing the so-called fat necroses and also other tissues, such as the pancreatic tissue itself and muscle, with which they come in contact. If they attack the blood vessels hæmorrhage ensues and there results the condition

known as acute hæmorrhagic pancreatitis. A certain number of lesions of this type are complicated by a secondary infectious process, sometimes producing gangrene. (ii.) Necrosis due to toxins (the type described in this paper). (iii.) Infectious pancreatitis, with or without abscess formation. It arises: (a) By infection extending along the ducts similar to infectious cholangitis and pyelonephritis. (b) From organisms circulating in the blood stream. (c) From extension of suppurative processes in the neighbourhood. The first and third types are generally extensive enough to give rise to clinical symptoms and even to cause death, whereas the second type would very seldom cause symptoms or death. In toxic necrosis the pancreas shows no gross changes. Microscopically the necrosis is found to occur in single acinar cells, groups of cells or diffusely. The necrotic cells are invaded by polymorphonuclear and endothelial leucocytes, as in other organs, and are very quickly removed. Regeneration follows rapidly and repair is complete. Often the processes of necrosis and regeneration are found in the same section. These necroses are believed to be toxic in origin because of similar lesions in the heart, liver, kidney and adrenals, because of the type of infection with which they are associated and because of the form of the lesion, namely, necrosis of the acinar cells with no involvement of the connective tissue and with no demonstrable organisms present. Toxic necrosis is most frequently found in pneumonia, diphtheria, acute peritonitis and other processes due to the streptococcus and pneumococcus—rarely to the *Staphylococcus aureus*.

(145) The Macrophages of the Loose Connective Tissue.

Nathan Chandler Foot (*Journ. Med. Research*, September, 1919) states that the "macrophages" of Metchnikoff have a definite affinity for the benzidine and other dyes of a colloidal nature, as well as for certain inert substances (carbon, Indian ink, cinnabar). To McJunkin belongs the credit of introducing the use of a colloidal lamp black-gelatin solution as a method of labelling cells of endothelial origin; while Forbes, under the guidance of Wolbach and Mallory, did a valuable experiment in connexion with the formation of giant-cells from the fusion of phagocytic mononuclear cells which he claimed to be of endothelial origin. The findings of Forbes dovetail with those of the author, but the latter goes further and investigates the problem as to whether these cells are derived chiefly from those which existed in tissue spaces before the lesion or chiefly from those which migrated through the vessel walls. Working with rabbits he injected trypan-blue intraperitoneally, agar subcutaneously and lamp black emulsion intravenously and examined the lesions at every stage from the first to the twelfth day. The syncytial masses that are formed around the agar and that are usually referred to as giant cells, are really cell groups and

hence neither giants nor cell entities. The results of these experiments seem to point to four things: (i.) That the macrophages of the connective tissue spaces are in reality of endothelial origin; (ii.) that they are not derived from the omentum; nor (iii.) from lymphocytes; (iv.) that a few seem to be of doubtful origin, exhibiting characteristics common to endothelium and to connective tissue. This is true of the small granular cells of the inter-muscular connective tissue. As the result of further experiments along the same lines, he concludes that the connective tissue macrophages are probably derived from the proliferating vascular endothelium in the immediate vicinity of the lesion which calls them forth rather than from the vascular endothelium in general. They do not appear to come entirely from the circulating mononuclear leucocytes, as McJunkin has suggested.

(146) The Growth Rate of Pneumococcus.

M. A. Barber (*Journ. Exper. Med.*, December 1, 1919) found that with Type I. and Type II. pneumococcus grown in hanging drops under the best conditions, the growth rate approximates one generation in 30 minutes. The hanging drop experiments gave no evidence of a measurable inhibition of growth in the serum of horses highly immunized to the homologous organism. While the growth rate in homologous serum was apparently unaffected, the character of the growth was distinctly different from that observed in heterologous serum or in other controls. The cells early became invested with a thick capsule and grew in chains which often intertwined and formed zooglia-like masses. The failure of immune serum to affect the growth rate is not altered when fresh rabbit blood, fresh human blood, or rabbit blister fluid is added in order to supply any hypothetical complement which might be lacking. In the peritoneal cavity of the passively immunized mouse, the growth of extracellular pneumococci continues at apparently the normal rate, until the bacteria are engulfed in phagocytes. The author's studies have not been successful in demonstrating that immune anti-pneumococcal serum owes any of its effect to any power of inhibiting the growth of pneumococci. That anti-pneumococcal serum has a high protective and curative value has been demonstrated, but the mechanism of this action is still not entirely clear. The attempts to analyse its mode of action have so far only succeeded in showing that it has the power of causing marked agglutination of homologous organisms and of changing the organisms so that they undergo phagocytosis. The fact that the only real test of anti-pneumococcal serum is its action *in vivo* in protecting the life of infected animals, seems to indicate that its effect depends, in part at least, in properties which are only manifested *in vivo*, the nature of which is not yet fully understood.

PÆDIATRICS.

(147) Infantilism, Pancreatic and Intestinal.

It has been noted that children subject to chronic diarrhoea are liable to remain undeveloped and to carry into adult life the physical and mental characteristics of early childhood. It was then suggested that certain of these cases were due to arrested or defective pancreatic secretion as shown by: (i.) the presence of much undigested food in the faeces, the undigested food becoming less after administration of pancreatic extract; (ii.) the small amount of phosphoric acid in the urine when the patient was on a milk diet, the amount being increased when pancreatic extract was given; (iii.) by the non-appearance of iodine in the saliva until pancreatic extract was administered. (Sahl's glutoid test). The cases showed arrested bodily and arrested sexual development, with no mental defect, no visceral disease or derangement, except chronic diarrhoea and flatulent distension of the abdomen and in some there persisted in the intestine a Gram-positive bacillus of the *B. bifidus* type, with a comparative absence of the *B. coli* type. T. Gillman Moorhead (*Dublin Journal of Med. Science*, January, 1920) reports two cases of infantilism, one of which came to the post-mortem room; the other much milder case showed marked improvement in general condition under bile and pancreatic treatment. The first patient, a female, aged 18 years, was admitted to hospital suffering from general mal-nutrition and painful spasms in the arms and legs. She had suffered from diarrhoea for 13 years and presented the typical phenomena of well-marked infantilism. Physical examination showed a retracted abdomen, palpable spleen and a liver 2.5 cm. below the rib margin. The motions were bulky and offensive and yellowish-white in appearance and numbered on an average five daily. *Tricocephalus dispar* was present in large numbers with its ova. Many fatty acid crystals were observed, a few undigested muscle fibres and a striking preponderance of large Gram-positive bacilli. X-ray examination of the skeleton demonstrated a general thinness of compact tissue in all the bone and a distinctly infantile type of pelvis and cranium. Post mortem the uterus was extremely atrophic, the ovaries firm and hard and contained no Graafian follicles; the thymus was enlarged, but on microscopical examination was found to consist mainly of fat, with clumps of lymphoid tissue here and there; the thyroid was normal; the spleen, liver, kidneys and pancreas were normal. The small intestine showed marked change; the villi showed no structure and most of the surface mucosa had disappeared. Marked catarrh was present, desquamated cells and mucus lay on the surface and goblet cells were numerous. The pituitary showed changes from the normal, but it was impossible to say whether these were real morbid changes or represented only different stages of secretory activity.

The primary pathological change was apparently a catarrh of the colon and small intestine and the pituitary changes were probably secondary. The other patient showed similar physical characteristics. She gave a history of four years' diarrhoea, but up till the age of 13 was perfectly healthy. The motions numbered four to five daily, were almost white and were bulky and offensive. A regular deposit of creamy fat separated on the surface of the motion. Fat and muscle fibres were present. Treatment with pancreatic extract resulted in improvement over a period of six months, but without any gain in height.

(148) Re-Establishment of Breast Milk.

Is it possible for every mother to nurse her baby? C. N. Moore (*Arch. of Pediatrics*, December, 1919) considers that it is possible, except in cases of active tuberculosis in the mother. Among the excuses for early weaning, "poor quality" of the milk appears most frequently. The trouble, however, if any, is one of quantity. Within natural limits a breast secretes milk in proportion to the demand made upon it. A sub-normal demand, weak suction or insufficient emptying of the breasts causes a rapid diminution in the amount. Hence with a weak infant additional means must be employed to increase the flow of milk. Four methods of increasing breast milk have been used: drugs, diet, massage and expression. (a) Practically every drug has been used for the purpose, each in turn having been discarded, the evidence being that there are no drugs which, whether taken internally or applied externally, can increase the flow of milk to any appreciable extent. (b) As regards diet, of course the mother must have additional food to make up for the 750 calories lost with the milk and enough water to replace the litre secreted. The protein content of a breast milk will remain normal on a diet including a glass of milk, one egg or its equivalent in meat. Probably the most common mistake is to overfeed the nursing mother, especially with cow's milk, which rather tends to fatten the woman than to increase a failing supply. (c) The beneficial effect of massage on the breast milk has long been recognized. There may be used electrical and manual massage, hot and cold applications, followed by suction with the breast pump. (d) Expression by hand. This method, though not new, has been perfected by the author, who considers that by its use every mother can nurse her baby. The procedure is as follows: (i.) Place the balls of the thumb and fore-finger on opposite sides of the nipple, just outside the areola, pressing them firmly against the gland itself. (ii.) Maintaining this pressure, bring the thumb and fore-finger together behind the base of the nipple. This presses the milk out of the ampulla which forms the beginning of each external milk duct. (iii.) Give a slight forward pull to empty these external ducts. Stripping or even touching the nipple itself is usually unnecessary.

With inverted nipples the ampulla is often 2 cm. to the dorsal side of the external openings of the ducts; deep pressure is, therefore, necessary. This method is of value both where the supply is defective and even where nursing has been discontinued for as long as eleven weeks. This re-establishment of the milk supply can frequently be brought about and should always be attempted when the weaning has taken place six weeks or less. The method should be employed where the nipple muscles are spastic (hard milkers), where there is temporary reduction or loss of milk and where the patient is weak from prematurity, immaturity or acute illness.

(149) Pneumococcic Peritonitis in Childhood.

I. A. Abt (*New York Medical Journal*, 1917) describes a primary form of pneumococcic peritonitis in children and a secondary form, usually following pleuro-pneumonia or otitis media. The infection in the former may be by the blood or lymph or by penetration of the coats of the bowel, pneumococci having been demonstrated in the bowel contents, passing through necrosed Peyer's patches and even through the healthy mucous membrane. Clinically the condition may be localized or diffuse. In the former, the infection sets in acutely, but soon becomes chronic, with mild symptoms, the pus becoming encapsulated. There is abdominal pain, vomiting and fetid diarrhoea. Vomiting soon ceases, but fever persists. After ten to fourteen days symptoms become more severe and the abdominal pains become localized to the hypogastrium, where there is fullness, dullness and fluctuation. The abscess, if unopened, may rupture through the umbilicus or into bladder or rectum. The condition may simulate tuberculous peritonitis or enteric fever, but the leucocyte count is usually high. The primary diffuse peritonitis is characterized by severe and rapid prostration, delirium and high fever. The four cases discussed in the paper began with vomiting, high fever and severe abdominal pain and were all in females. There was diarrhoea alternating with constipation. One patient had general pneumococcic septicæmia, with lesions of lungs, pleura, heart and kidneys, the other three had peritonitis only. The early severe symptoms decreased on the second or third day and the abdomen became less distended. Localized collections of pus formed and tended to point outwardly. The diffuse form tends to pursue a severe and often fatal course. The pulse is small, irregular and rapid. The abdomen becomes more and more distended and dullness may be detected in the flanks. Muscular rigidity may be absent. The diagnosis from appendicitis is often very difficult, especially in the absence of pneumococcic infection in other parts of the body. The prognosis in the diffuse form is bad, but relatively good in the localized variety. Treatment is to put the patient in Fowler's position, with incision and drainage, with definite localization of the infection.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch was held at the Royal Alexandra Hospital for Children, Camperdown, on April 9, 1920, Dr. F. P. Sandes, in the chair in the unavoidable absence of the President and the Vice-President.

Dr. C. P. B. Clubbe presented two children to illustrate an extremely puzzling type of affection. The first patient had been admitted to the Hospital with the usual signs of incipient tubercular disease of the hip. There was fairly free movement and but little restriction to passive flexion and abduction of the thigh on the trunk. The joint was examined by X-rays and to his astonishment, it was seen in the skiagram that there was extensive destruction. The von Pirquet test yielded a negative response and the patient's serum gave a negative reply to the Wassermann test. The condition was obviously the disease known as Perthes's disease. In 1909 an American practitioner, Legge, has described a destructive affection of the hip joint which simulated tuberculosis of the hip symptomatically. A year later, Perthes published an independent account of the condition, which he called "*osteochondritis deformans juvenilis*". Later Calvé, of Berck-sur-Mer, described a similar condition, but subsequently admitted that the condition he had dealt with was Perthes's disease. The condition had also been described by Taylor. The onset was usually insidious and the first signs were slight restriction of the movements of the hip joint. When the examination was carried out at an early stage by X-rays, it was seen that the epiphysis was flattened out and the epiphyseal line irregular. Later the neck of the bone became shortened and ultimately the head became involved. The process went on to very extensive disintegration of the joint. Frelberg had assumed that the condition was the result of an infective tonsillitis. Blanchard thought that it was a trophic condition. Others had put forward various theories, but Dr. Clubbe thought that they should regard the etiology as quite obscure. From the practical point of view, it was almost a pity that the disease had been differentiated from tubercular disease of the hip, since the enforced rest for a prolonged period, necessary in the treatment of the latter affection, yielded better results than were obtained with less severe treatment. The disease usually lasted for from one to three years. The treatment consisted in rest in bed at first and later immobilization by means of splints or plaster casing, while the child was allowed to move about. Recovery was complete if the child did not succumb to an intercurrent affection, but some deformity often resulted unless complete rest was enforced for a considerable period.

Dr. Alfred W. Campbell exhibited a child, aged 13 years, who had been under the care of Dr. Cecil Rogers, suffering from what appeared to be a tuberculous growth, situated in the sphenoidal fissure. The patient presented the following neurological signs, all on the side of the lesion: (a) As affecting the fifth nerve; complete anaesthesia of the skin of the forehead supplied by the frontal branch of the first division of the fifth nerve; corneal areflexia; suppression of lachrymal secretion; weakness of the pterygoid muscles, causing the lower jaw to fall to the affected side on opening the mouth. (b) As affecting the sympathetic; pseudoptosis, from paralysis of the non-striated muscle in the eyelid; contraction of the pupil, from paralysis of the *dilatator pupillae* and *enophthalmos*. (c) As affecting the sixth nerve; strabismus, from paralysis of the external rectus.

Dr. R. B. Wade stated that he wished to supplement the demonstration given by Dr. Clubbe by illustrating some other conditions simulating tubercular disease of the hip joint. He called the attention of the members to two cases of hysterical disease of the hip joint. The first child was admitted to hospital two years before with the diagnosis of tubercular disease of the hip. The condition was not typical. The limitation of movement was not complete. The symptoms disappeared after a period of rest. The von Pirquet reaction was negative. The child returned to its home and later was sent to school. After a time the hip again began to give pain. For eighteen months the child had walked with a limp and had complained of pain. No change was seen in the joint when examined by X-rays. There was limitation of movement in abduction only and there was

no shortening. By proper handling the symptoms had disappeared and the child walked well. The second patient was also a little girl. The history was similar. She had received a kick on the hip which had become swollen and tender. Attacks of pain supervened and the child became very lame. No changes were detected in the joint on X-ray examination. When the thigh was moved, the child screamed and movements were limited in all directions. The site of the pain was not constant and the attacks were obviously influenced by displeasure. The treatment consisted in a planned scheme of re-education. She had lost her pain and the limp had almost disappeared.

Dr. Wade's third patient presented all the signs of *coccidia* of tubercular origin. The von Pirquet reaction was positive. There were night starts at times. The skiagram of the hip joint was exhibited. It was seen that the head of the femur was apparently unaffected and the joint was free. In the neck of the bone was seen a cyst-like lesion, with considerable thickening of the dense bony structure and expansion of the cancellous tissue.

Dr. Wade demonstrated some patients with tubercular disease of the hip who were being treated on Jones's frame. He illustrated the advantages of this method of immobilization.

He also exhibited a patient who had come to him with a swelling of the upper end of the humerus. The physical characters of the tumour corresponded to those of sarcoma of bone. The circumference of the tumour had, however, a sharp edge and it was somewhat elliptical, rather than spherical, as sarcomatous tumours of bone usually were. He had operated on the arm. On cutting into the tumour, he had found it to be full of blood clot and to contain myxomatous tissue. No sarcoma cells were discovered.

Lastly Dr. Wade showed a specimen of a gangrenous intussusception which had been removed at operation.

Dr. W. F. Litchfield presented a patient whom he had shown at a previous meeting of the Branch. The child on the former occasion had well-marked signs of the disease known as "pink disease" or erythro-oedema. He had then stated that with careful handling, the prognosis was good. The members were able to satisfy themselves that recovery had taken place. The mother had been so pleased at the excellent result, that she had entered the child at a baby show. Dr. Litchfield also showed three children with familial acholuric jaundice. These patients had also been shown at a previous meeting. We hope to be able to publish full notes of these interesting cases in a future issue.

Dr. Litchfield next brought forward a patient of Dr. J. Macdonald Gill. The child was suffering from advanced anaemia with enlargement of the spleen. The red blood cells numbered 3,430,000 per cubic millimetre and the leucocytes 8,000. The neutrophile cells represented 63% of the white cells, the lymphocytes 30%, the transitional cells 4%, the eosinophile cells 3% and the basophile cells 2%. The diagnosis of Banti's disease was discussed. Dr. Litchfield pointed out that it was of great practical importance to make this diagnosis early in the affection, as removal of the spleen yielded much better results in Banti's disease than in any other form of anaemia.

He also showed a child who had been admitted to hospital suffering from acute pollomyelitis. The course of the disease was not unusual and improvement set in after a relatively short time. After a time, it was noticed that the child had a nasal discharge. Diphtheria was suspected and the nasal and faecal mucus was examined bacteriologically. The report from the laboratory was that diphtheria bacilli were not present. The condition of the child became worse and later difficulty in swallowing appeared. There was some paralysis of the intercostal muscles and the diaphragm ultimately became affected. Careful treatment and nursing had kept the child alive and it was apparently on the road to recovery. There was still intercostal and diaphragmatic paralysis. Dr. Litchfield had little doubt concerning the nature of the paralysis. He had seen recovery on several occasions from diphtheritic paralysis of the diaphragm.

Dr. P. L. Hipsley showed a child, aged six weeks, with pyloric stenosis. The infant had been healthy at birth and had been fed at the breast. When three weeks old, it vomited after feeding. At times the vomiting followed immediately

after the feeding and at other times it occurred three hours later. The vomiting occurred after every feeding. Constipation was present. On admission the child was found to be wasted and puny. Peristaltic waves were plainly visible. It was fed on sherry whey for 24 hours and continued to vomit. Rammstedt's operation was then performed. At first the vomiting continued, but it soon ceased and the baby was improving rapidly. The weight on the day following the operation was 3,657 grammes. Nine days later it was 3,982 grammes, a gain of 325 grammes.

Dr. F. C. Rogers showed two children. The first was recovering from Erb's paralysis. The second was exhibited on account of a congenital absence of both patellae. The child was able to walk well and there was no trace of *genu recurvatum*. He had treated a resulting knock-knee by means of suitable outside splints.

Dr. M. J. Plomley presented two brothers, aged 11½ and 13 years respectively. They were both in the infants' class at school and were obviously imbecile. They were able to talk and could be made to run messages. The point of interest was that in both the secondary sexual characters were well developed. The external genitals corresponded to those of boys of their ages and the growth of hair on the pubes was free. There was no hair in the axillae.

Dr. Plomley also showed a boy aged 14 years. The boy was mentally deficient. He was incapable of speaking, although his mother claimed that she could understand what he wanted. The arms were wasted and badly developed and almost useless. The legs appeared to be extremely well developed. The knee jerks were active. Dr. Plomley called attention to the similarity in appearance of the condition to that of pseudo-hypertrophic paralysis. This boy, however, was active on his legs and could walk and run well.

Dr. E. H. M. Stephen presented a child, aged 4 years, the subject of celiac disease. From the first year of life the child had failed to thrive. The diagnosis of tubercular peritonitis had been made elsewhere on more than one occasion. There was alternate diarrhoea and constipation. The motions were large, out of all proportion to the amount of food ingested. Their consistency was like putty and their colour was grey. There was considerable anaemia. The von Pirquet reaction was negative. The child was placed on a fat-free diet. No butter, fat or fresh milk was given. "Lactogen" and "Glaxo" were allowed and fruit juice. Fresh fruit was forbidden. The improvement was manifest. Dr. Stephen pointed out that the majority of the patients improved under treatment, but sooner or later the strict diet was no longer followed and relapses occurred. He referred to Still's comments on the alleged bacteriology of the condition. Nothing definite was known of the aetiology.

Dr. W. Vickers showed a child, aged 9 months, with hypospadias. He called attention to the difficulty in determining how to deal with the child. The parents had named the child Margorie and thought that it was a girl. A divided scrotum and buried penis were clearly demonstrated. The urethra opened on the under surface of the penis. Further details of this condition will be published in a subsequent issue.

MEDICO-POLITICAL.

A meeting of the Victorian Branch and of the Medical Society of Victoria was held on April 14, 1920, at the Medical Society Hall, East Melbourne, Mr. G. A. Syme, the President, in the chair. There was a large attendance of members.

The President welcomed the following members, who had recently returned from active service abroad: Lieutenant-Colonel L. H. Fairley, O.B.E., Major W. A. Hailes, D.S.O., Major R. H. Strong, Major Basil Cohen, Captain A. P. Lawrence, M.C., Captain H. Mendelsohn, M.C., and Captain J. McDonald.

The President announced that it was his duty and very great pleasure to move:

That Dr. W. R. Boyd be elected a life-member of the Medical Society of Victoria for valuable services rendered to the Society.

Mr. Syme explained that, whereas the rules of the British Medical Association did not permit of the election of honorary or life members of the Branch, such a distinction was provided for by the rules of the Medical Society of Victoria.

It was scarcely necessary for him to dwell upon the very valuable services rendered in the Society by Dr. Boyd. Dr. Boyd had taken a very active part in the dispute with the friendly societies and had carried out a great work in the organization of the profession in Victoria before the lodge dispute was initiated. Some statistics appearing in a recent number of *The Medical Journal of Australia* gave an altogether too low estimate of the percentage of medical men practising in Victoria who were members of the Victorian Branch. That this erroneous impression was conveyed was due to the very inaccurate condition of the Medical Register, on which the article was based; there were very many names still on the Register of medical men who were dead, who had left the State, or for other reasons were not practising. The Council estimated that at least 90% of the profession in Victoria were members of the Association; that this was so was due in very great measure to the untiring efforts of Dr. Boyd.

Dr. Boyd had indeed worked extremely hard; he had spared neither time nor energy in conducting the lengthy negotiations with the friendly societies. Mr. Syme added an expression of regret that ill-health prevented Dr. Boyd from being present at the meeting. The motion standing in his name expressed the Council's gratitude to Dr. Boyd. He felt sure it would be heartily endorsed by the meeting.

Dr. A. Norman McArthur expressed his pleasure in seconding the motion. Only the Council and the Organization Committee could fully appreciate the extraordinary amount of disinterested work accomplished by Dr. Boyd for the benefit of the profession at large.

Dr. Boyd had proved a strong leader; he had fought hard and at all times had tried to do the very best in the interests of lodge practitioners. The large measure of success gained was due in no small degree to the personality of Dr. Boyd, his capacity for hard work and the diplomatic manner in which he had handled difficult situations. Long before the lodge dispute Dr. Boyd had been known to them all as an active worker in the best interests of the Society and he had always been ready to give his mature advice to the younger members of the profession.

Dr. McArthur felt that the compliment embodied in the motion must be accorded unanimously to a man of Dr. Boyd's calibre.

The motion was then put to the meeting and declared by Mr. Syme to be carried unanimously.

The undermentioned have been nominated for election as members of the New South Wales Branch:—

Eric Hyam Freidman, Esq., M.B., Ch.M., 1920 (Univ. Sydney), 174 Glenmore Road, Paddington.

John Herald Balfour Brown, Esq., M.B., Ch.M., 1915 (Univ. Sydney), Newcastle Hospital, Newcastle.

Henry Houwink Holland, Esq., M.R.C.S., Eng., L.R.C.P., Lond., 1907, M.B., B.S., Lond., 1908, Cobarr.

Gerald Windett Goddard, Esq., M.B., Ch.M., 1920 (Univ. Sydney), All Saints' Rectory, Petersham.

We regret to record the death of Dr. Stanislaus Emil Antony Zichy-Wolnarski, of Collins Street, Melbourne.

STATE CHILDREN OF SOUTH AUSTRALIA.

The report of the State Children's Council of South Australia for the year ended June 30, 1919, contains a little more than ten pages of statistical tables and some narrative. On the first day of the period covered by the report 1,838 children were under State control. During the 12 months 231 children were committed, while 174 were discharged at the expiration of their term, 52 were released from petition and three died. At the end of the year there were therefore 1,840 children under control. Of this number, 1,533 were boarded out within the State, nine were placed with guardians outside the State, 269 were kept in institutions, including 90 in the industrial school, and 29 were absconders at large. The cause for committal was some offence against the law in 78 cases (the South Australian girls appear to be well-behaved, since only four appear in the list). Thirty-three children were admitted on account of illegitimacy and 32 on account of unfit guardianship. Twenty-six of the little ones were found to be destitute and

24 were uncontrollable. In 38 cases the children were admitted temporarily.

Industrial School.

During the course of the year 604 children were admitted to the Industrial School. Of this number, 465 were re-admitted, 18 children were transferred from various institutions and 121 were admitted for the first time. Of these, 32 were admitted as neglected and illegitimate children, 28 were admitted as neglected children under unfit guardianship, 28 were admitted temporarily, 26 were admitted on account of destitution, five because they were uncontrollable and two because they had committed some offence. In the course of the year 596 children were dismissed, including absconders. In 267 instances the children were dismissed "to subsidy." In 141 cases they were dismissed to service, in 60 instances the children were sent to hospital, including the Babies' Hospital: there were 19 children sent on probation, 21 were sent to reformatories and three to the Probationary School. On the first day of the year there were 82 children in the industrial school and on the last day of the year there were 90.

The Reformatories.

The Reformatory at Redruth is an institution for girls. On June 30, 1918, there were 31 inmates. During the course of the year five children were admitted for the first time, 12 were transferred from other institutions and 39 were re-admitted. Three of the five new inmates are described as uncontrollable and one was admitted on account of stealing. The number of children dismissed during the year was 54, including 36 who were sent to service, five who were referred to the Department, one who was sent to hospital and one who was sent to a lying-in home.

At Pullarton there is a probationary school for girls. Unfortunately, no information is given concerning the character of the inmates. Two girls were admitted because they were uncontrollable and one because she was habitually absent from school. The institution is small, the total number of children in it having been 17 on the first day of the year.

There are two reformatories and one probationary school for boys. At the reformatory at Magill there were 23 inmates on the first day of the year and 85 were admitted during the year. Of these, 34 had been admitted before. The offences of which these children were guilty were larceny in 12 instances, unlawful possession in ten, sexual offences in three and minor offences in the remainder. At Brooklyn Park among 27 children admitted, eight had been in the institution before, six were transferred from other institutions and 13 were in for the first time. Of 20 children dismissed, only four were sent to service.

At the Probationary School at Mount Barker ten children were admitted for the first time, 19 were re-admitted and three were transferred from other institutions.

Children Under Custody and Control.

In certain cases the State Children's Council does not regard it as necessary to send children brought before the Court to an institution. These children are placed under guardians and are subject to the supervision of the Council. The total number coming under this category on June 30, 1919, was 114, while 44 were added to the list during the year. It appears, however, that no less than 26 of the 158 children found their way to a reformatory or industrial school during the course of the year.

Probation Children.

On the first day of the year under review there were 307 children on probation. This number was increased by 128 during the year and decreased by 115 who were dismissed from probation. The reasons for dismissing the children from probation throws some light on the value of the assistance employed. Thirty-one of the children reached the age when the State no longer has any control. We have no information as to the mental, moral or other condition of the children dismissed in this manner. Twenty-four of the children were withdrawn from probation because of serious misconduct. There were 12 absconders, while five children were transferred to the Industrial School. One child was dismissed on account of "mutual dissatisfaction." We feel justified in grouping these 62 children together as instances of failure.

The Children's Court.

In the course of the year 302 children were brought before the Children's Court. In 200 instances the prosecution was in the hands of the police; the charges were for misdemeanours and breaches of Corporation by-laws. In the remaining 102 cases the State Children's Department prosecuted because the children were neglected, destitute or uncontrollable. A paragraph is appended dealing with the inconvenience to the officers, lawyers and witnesses of a cramped court room. No information, however, is given concerning the unfortunate children for whom the court room exists.

The probation officers are required to visit the homes of all children reported to the Department as being neglected. The number of these visits was 101. In some cases the parents were induced to mend their ways, while in others the children had to be brought before the Court and committed to the care of the Department.

Boarding Out of Children.

The number of licences granted to women to act as foster mothers was 444. In four instances the application for a licence was refused. The total number of children supervised during the year is stated to be 2,486. Of these, 434 were with licensed foster mothers and 2,052 were in unlicensed homes. In 387 cases the children were found in unlicensed homes during the year. The condition of the children was good in 250 instances and the condition of the home was fair, satisfactory or very good in 353.

The report contains other figures, but very little other information. There is a lack of narrative from which the reader could glean something of the methods employed and could form an opinion concerning the prospects for the children involved of a future useful life. From the scanty details hidden between the figures, it would seem as if sufficient care were not exercised to separate children who, on account of mental deficiency, or vicious environment, are morally depraved, from wayward children whose worse offence is an exuberance of spirit.

INFLUENZA IN THURSDAY ISLAND.

According to the statements published in the daily press, there were 560 cases of influenza at Thursday Island between February 2 and February 14, 1920. The total number of deaths was 26. The total mortality was thus 10%. Twenty of the patients were whites and, of them, three died, which is equivalent to a death rate of 15%, while of the 540 aborigines and Asiatics, 53 died, which is equivalent to a mortality of 9.8%.

MEDICAL OFFICERS' RELIEF FUND (FEDERAL).

The Trustees acknowledge, with thanks, receipt of the following donations and promises to the above-named Fund:

(SIXTEENTH LIST.) New South Wales.

	£	s.	d.
Dr. J. C. Windeyer	40	0	0
Dr. "B"	20	0	0

Queensland.

Dr. H. L. Hawthorne	10	11	0
Dr. F. C. Bechtel	10	10	0
Dr. C. A. Tunstall	5	5	0
Dr. E. Kent Hughes	4	10	0
Dr. D. F. Finlay	2	2	0
Dr. Guilford Davidson	2	2	0

Total to April 20, 1920, £11,662 18s. 10d.

The Public Health Commission of Victoria elected at a meeting held on April 7, 1920, Dr. Walter Summons, O.B.E., Dr. W. S. Newton and Mr. R. Wilks as members of a committee to deal with medical matters. A Sanitary Engineering and Buildings Committee was also appointed.

We have been informed that the residents of Junee, New South Wales, recently made a valuable presentation to Dr.

H. G. Button as an expression of their gratitude for the many acts of courtesy and kindness shown to them by Dr. Button during the past 28 years.

THE MENTAL HOSPITALS OF NEW SOUTH WALES.

The revised rates of remuneration and conditions of service for medical officers serving in the Department of Mental Hospitals in New South Wales have been published in the *New South Wales Government Gazette*, No. 70, of April 9, 1920. The following regulation has been substituted for that governing the terms and conditions obtaining hitherto:

The following shall be the minimum and maximum rates of salary payable to Medical Superintendents, Senior and Junior Resident Medical Officers and Managers of the Department of Mental Hospitals:

Medical Superintendents.—Minimum Salary on Appointment: £750, with quarters, light, laundry and part furniture, valued at £124 per annum. Maximum Salary: £900, with same allowances.

Senior Resident Medical Officers.—Minimum Salary on Appointment: £600, with quarters, light, laundry and part furniture, valued at £85 per annum. Maximum Salary: £600, with same allowances.

Junior Resident Medical Officers.—Minimum Salary on Appointment: £300, with quarters, fuel, light, laundry, service and part furniture, valued at £100 per annum. Maximum Salary: £550, with same allowances.

Managers.—Minimum Salary on Appointment: £450, with quarters, light, laundry and part furniture, valued at £82. Maximum Salary: £600, with same allowances.

In the case of Junior Resident Medical Officers the increases of salary between the minimum and maximum rates shall be by increments at the rate of £50 per annum; in the cases of Medical Superintendents and Managers the increases of salary between the minimum and maximum rates shall be by increments in accordance with the provisions of Regulation 114. Payment of increments will depend on the ability and diligence of the officer concerned, together with the responsibility of the position occupied: Provided that no such increase will be given except upon the recommendation of the Inspector-General of Mental Hospitals.

The above scale is to apply as from July 1, 1919, provided that no officer is to receive an increment until he has been for a period of at least twelve months on his present salary.

THE HEALTH OF LAUNCESTON.

Dr. L. G. Thompson, the Medical Officer of Health of Launceston, has issued an annual report for the year 1919.

Statistics.

The number of births registered during the year was 811, as compared with 834 in 1918 and 862 in 1915, which is equivalent to a birth-rate of 33.7 per 1,000 of population. The birth-rate for the whole of Tasmania in 1918 was 25.91%. The total number of deaths was 429, which represents the highest number since 1910. The death-rate was 17.87 per 1,000 of population. The crude death-rate for Tasmania for 1918, according to the Official Year Book of the Commonwealth, was 8.84 per 1,000. There were 68 deaths of infants under one year of age and 36 of infants in the first month of life. The infantile mortality was 83 per 1,000 births and neo-natal rate, which Dr. Thompson regards as the most sensitive index of the health of a community, was 44.3 per 1,000 births.

Of the 429 deaths, 71 were due to notifiable diseases, 30 were due to malignant disease and 29 to tubercular diseases.

During the course of the year 298 cases of infective diseases were notified to the health authorities. Of these, 224 were of diphtheria, which represents an attack rate of 8.4 per 1,000 of population, and the seven deaths represent a mortality of 3.1%. There were 19 cases of enteric fever, with two deaths, eight cases of scarlet fever, four cases of

puerperal fever, three of *ophthalmia neonatorum*, two of cerebro-spinal meningitis and 29 of pulmonary tuberculosis, with 23 deaths.

General Sanitation.

The Medical Officer of Health, in dealing with the question of the condemnation of houses unfit for habitation, states that any sort of dwelling has to be treated with respect, because so many people are flocking into the town. This principle may be regarded as necessary from an economical point of view, but it is not hygiene. The number of houses condemned was 50 and the number of those demolished was 14.

It is reported that 93 premises used in the business of producing and selling milk were inspected during the course of three weeks and that at the same time 338 cows were examined. The result of the inspections and examinations, however, is not given, nor is any reference made to measures adopted to insure a healthy and plentiful supply of pure milk. Dr. Truby King is quoted as having proved that the mother's duty is to nurse her baby. We would suggest that this manifest duty was recognized many centuries before Dr. Truby King was born. Moreover, it is urged in the same sentence that a supply of clean milk should be available for infants who are artificially fed. Dr. Truby King and Dr. Thompson have fallen into a serious error in according a prominent place in the infant-welfare campaign to artificial feeding. It has been shown, first in Paris and later in every other country in the world, that practically every woman can feed her own baby and that only those with advanced tubercular or other serious infections should be excused from doing so. A pure milk supply is required for everyone else except babies. Dr. Thompson states that "if we are to believe Shaw that it is now certain that tuberculosis is universal," measures must be adopted to secure a supply of clean milk. It would be interesting to learn who Shaw is. Dr. Batty Shaw has, it is true, taught for many years that tubercular infections occur in childhood and affect practically the whole child population, but he does not claim that he was the first to conceive the theory or to attempt to supply the proof. There is room for doubt whether even a large proportion of infants are infected by bovine tubercle bacilli.

The remainder of the report is occupied by a brief summary of some of the measures adopted in England, America and Denmark to secure a satisfactory supply of milk for human consumption.

We learn with regret of the death of Dr. Thomas William Brown, of Fairfield Park, Melbourne.

Correspondence.

THE PRACTICAL SIGNIFICANCE OF THE WASSERMANN REACTION.

Sir: May I trespass on your space with a few remarks concerning some aspects of the Wassermann test, which appear to me to be of considerable practical importance. The application of this test in clinical medicine and surgery is daily becoming more of a routine and there is, I think, a correspondingly increased necessity for some uniformity of opinion with regard to the practical significance of the various results obtained, especially as concerns the indications for treatment. The number of cases in which we encounter definite difficulties in arriving at a correct line of procedure, is far from small.

In the first place, let us consider the types of cases with which we have to deal. In a general way, the cases which present little difficulty are those in which the patient presents some definite lesion and the possibility of syphilis as the cause presents itself. In these circumstances it is generally agreed that the occurrence of any other than a negative Wassermann result would be an indication for a full course of treatment.

There remains, then, the large group of cases in which the test is made for some reason other than the presence of any pathological condition, as, for example, when the test is made as part of a routine examination, or at the patient's own request, perhaps to confirm the cure of an in-

fection contracted many years previously or perhaps on account of "syphilophobia." When, under these circumstances, we are told that the result of the Wassermann test is "partial," "feeble partial" or "doubtful negative," the difficulties of which I have spoken become manifest, and any of the following problems may require solution:—

(1) Is it necessary, in the patient's interests, he being in perfect health, to immediately institute anti-syphilitic treatment in the hope of eventually rendering the reaction negative?

(2) Is the patient a source of danger to persons with whom he comes into ordinary contact?

(3) If the patient has arranged to be married in the near future, should the marriage be forbidden?

(4) If the patient is already married and the father of several perfectly healthy children, is it necessary or advisable to carry out Wassermann tests on his wife and children; and in the event of similar findings to those in the father's case, does the answer to problem 1 (whatever it may be) apply to them also?

Many similar problems may arise, but these may be taken as types; and it is useless to hope that they will not require consideration, for in most cases the patient will have thought of them all, and asked for a direct "yes" or "no" to each within three minutes of being told the result of his Wassermann test.

As far as I know, there is no generally accepted scale by which such findings as "partial," etc., may be expressed in terms of the presence or otherwise of living spirochaetes in the patient's body; and when we consider the nature of the test, this is hardly surprising, for in its essence the test is one for the presence of the anti-bodies excited by the organism and not for the organism itself. This being so, there are ways in which, theoretically, a non-negative Wassermann might be given in the absence of living spirochaetes.

In the first place the element of heredity presents possibilities. It is conceivable that the anti-body content of the syphilitic progenitor's serum might constitute a transmissible characteristic and that consequently the serum of the offspring would show a like anti-body content, and therefore a non-negative Wassermann reaction, although no living spirochaetes had been transmitted.

In the second place, there is the patient who has had syphilis some years previously, has received adequate treatment and been apparently cured. In the case of typhoid infection we know that the typhoid anti-bodies (and therefore a positive Widal reaction) persist in the blood for years after the death of the last *B. typhosus*. If we admit the analogy, might not syphilitic anti-bodies (and therefore a non-negative Wassermann) persist for years after the death of the last spirochaete?

Lastly, there is the fact that the antigen used in the test is admittedly non-specific, how, then, can we escape the conclusion that some degree of partial reaction might be due to complement fixation resulting from the presence of anti-bodies formed as the result of infection by organisms other than the *Spirochaeta pallida*?

I am fully aware that some or all of these suppositions may be considered fallacious by experts, but I am not aware of any accepted rulings which will cover the four problems quoted above; for the latter reason I would welcome the opinions of some leading clinicians and bacteriologists on the subject.

Yours, etc.,

H. CECIL COLVILLE.

Burke Road, Upper Hawthorn, Victoria,

April 13, 1920.

THE LABORATORY AND THE CLINIC.

Sir: May I beg to offer you my congratulations and thanks for your sub-leader on the laboratory and the clinic in the issue of April 10. Its strong, good sense was timely.

I should imagine that these few who are maintaining an up-hill struggle in laboratory work in Australia, experienced one and all considerable pain in reading the comments of my friend, Mr. Hamilton Russell, who spoke of the danger of "importing the lore" of the laboratory into the operating room. He instanced the untoward results attending the administration of chloroform based on laboratory results. If this refers to the Hyderabad Commission, the example was

an unfortunate one, for the members of that body were chiefly practitioners and no single physiologist was included. Naturally the advances in surgical technique, on which the surgeon's eyes are often too exclusively directed, do not owe so much to laboratory investigation as does progress in medical science; but I would remind Mr. Russell that Roentgen, Dakin and Bayliss, to whom modern surgery owes something, carried out their researches in laboratories and were not even medically trained. Amongst my happiest recollections are many of seeing Victor Horsley hard at work in the laboratory and refusing to interrupt the experiment by the demands of any new patient, however wealthy.

In my mind one of the most reassuring features of the medicine and surgery to-day is the number of young men and women in practice who are willing to co-operate with laboratory workers and whose utterances are encouraging and helpful and not cynically hostile.

Yours, etc.,

W. A. OSBORNE.

Physiological Laboratory, University of Melbourne,
April 13, 1920.

EXCISION OF URETHRAL STRICTURE.

Sir: In connexion with this discussion I would like to say that I am in accord with Dr. Harris's view, that the two-stage operation is of the greatest value. The relief of back pressure and mitigation of sepsis are not the only reasons for a preliminary cystotomy, however. These patients are commonly in a low state of health from loss of sleep, pain and mental distress, in addition to the other factors. They are bad subjects for any operation of a severe or lengthy nature. The striking improvement in an elderly prostatic patient relieved by a suprapubic drain is, I think, largely due to beneficial effect of undisturbed rest.

Uræmia does not depend entirely on back pressure. I have frequently seen uræmic symptoms developing in cases of failing senile heart, disappear in response to digitals. In the same way the circulatory improvement brought about by rest (mental and bodily) is, I believe, a large factor in the renal recovery that follows a supra-pubic drain. Draining by catheter is not the same. The urethra is a sensitive part and often intolerant of the presence of a foreign body.

To my mind the two-stage operation and continuous irrigation are the greatest recent improvements in prostatectomy and have made the suprapubic operation the method *par excellence*.

In the same way the method of Dr. Hamilton Russell for excision of stricture has revolutionized the treatment of these cases, but in many, if not all cases, it should be combined with a preliminary suprapubic drain.

Yours, etc.,

J. MORTON, M.B., Ch.M.

Sydney.

April 13, 1920.

NEPHRECTOMY IN COUNTRY PRACTICE.

Sir: Allow me to bring through the medium of our *Medical Journal* under the notice of the colleagues the following case.

Owing, probably, to my comparatively limited knowledge of Australian surgical literature, I am not acquainted with any similar cases.

A baby girl, O., 5 months old, was brought to me by her mother with a history of a sudden appearance of a tumour in the left inguinal region. After an unsuccessful attempt to reduce what appeared to be a strangulated hernia, I operated on the little patient the same night, in somewhat unsatisfactory surroundings in a private house. On incision the contents of the tumour proved to be a kidney, firmly embedded in surrounding tissues. I closed the wound and advised the parents to take the baby to the Children's Hospital in Adelaide, where Dr. H. Gilbert removed the organ.

A report of microscopical examination from the South Australian Government Bacteriological and Pathological Laboratory stated: "The section shows the organ to be a kidney. The baby made an uneventful recovery."

A question to colleagues: In a patient of that age and in circumstances of a country practice, with no hospital and 90 miles from the capital, is there any means of ascertaining

whether the strangulated kidney (if such an expression be permissible) is not the only one the patient is in possession of and what course of treatment is to be undertaken?

Yours, etc.,

"COUNTRY PRACTITIONER."

March 25, 1920.

THE TREATMENT OF FILARIASIS.

Sir: I read Dr. Nisbet's article on the treatment of filariasis in your issue of April 3 with much interest. There is one important matter, however, that he does not touch upon and which seems to me the chief thing to do in these cases.

As is well known, a "filariated" person is a source of infection to himself and others living under the same roof. Mosquitoes bite him, develop the embryos and in biting again, pass these back to him or others in the house, so that he is continuously being re-infected. Now it is absolutely necessary that he should sleep under a good mosquito-net curtain. Few suffering from filariasis know that that is necessary for their welfare and many of them are unable to buy the mosquito net. The notification of filariasis is a step in the right direction, but there should be an officer of the Health Department told off to visit these cases and see that they have a good net and in case of poverty the net should be supplied gratuitously.

The life of the various filariae of animals has been found to be but a few years, therefore, judging by analogy, the life of the human filaria should be from three to five years.

I have been in the habit of telling every "filariated" person I saw to be careful to prevent re-infection, for if they do that, they will probably be free from filaria in five years.

Yours, etc.,

THOS. L. BANCROFT.

Eldsvold, Queensland,
April 8, 1920.

VITREOUS HERNIA.

Sir: In your issue of April 10, Dr. Lockhart Gibson, at a meeting of the Queensland Branch, reports a case of hernia of the vitreous into the anterior chamber. Such a condition, as one of the speakers said, is very rare.

If, however, Dr. Gibson will turn up his files of *The Ophthalmoscope* of May, 1914, he will find a description of an exactly similar case to his reported there by me. The condition is described in Roemer's textbook.

Yours, etc.,

E. TEMPLE SMITH.

"Wyoming," Macquarie Street, Sydney,
April 12, 1920.

THE VENEREAL DISEASES ACT, 1919, OF NEW SOUTH WALES.

Sir: In his letter published April 17, Dr. A. S. Vallack seems to me unduly pessimistic as to the certificate of cure in gonorrhoea. This pessimism is partly due to the fact that he has apparently not read the "Venereal Diseases Regulations, 1919," gazetted November 10, 1919. Dr. Vallack states that the two smear tests in the male is ridiculous and that "gonococci may be present in the threads found in the urine of males, even when they have no discharge at all." But I would like to point out that the regulations make some provision for this contingency. They read as follows:—

10. (2) In the case of gonorrhoea no certificate of cure shall be given unless:—

- (a) All signs of inflammation shall have been absent for at least one month.
- (b) Microscopical urinary examination by a medical practitioner for the purpose shall have failed to detect the presence of Gram-negative diplococci, resembling gonococci; such examination to include at least two specimens, taken at intervals of at least one week.

Everyone will agree that this standard of cure is a low one, but it must be remembered that there are two classes of medical practitioners treating gonorrhoea (1) general practitioners and (2) specialists in venereal diseases.

In order to make the regulations practicable at all, it is

necessary to make a standard that the first class can reasonably comply with and one must also bear in mind that the free venereal clinics which are being established, must have a standard of cure which the staff can comply with and that standard must allow of a fairly rapid discharge rate in order to allow of a rapid admission rate, otherwise the clinics would be overflowing with doubtful cases, whilst acute cases were clamouring for admission.

The specialists will, of course, have a higher standard of cure, using the information gained by urethroscopy, irritant injections, vaccine inoculations, cultural methods, complement deviations, etc., but how is the general practitioner who continues to treat venereal disease, to carry out these methods? In my opinion the administration of the Act will lead toward a higher standard of cure than the regulations set forth, but in the case of the male, I cannot find fault with the regulations as a beginning. I consider that there should have been a separate standard of cure for the female. A microscopical examination of the urine is inadequate. There should be a microscopical examination of pus or mucus from the *cervix uteri*.

Dr. Vallack states that: "If we sign these papers, the country will be full of these 'legally cured' sources of infection." But surely the restraint and knowledge which the public will acquire from the administration of these regulations, will be better than the total absence of restraint and no standard of cure.

I quite agree with Dr. Vallack's suggestion, that a general meeting might be convened, but it must not be forgotten that a fairly representative meeting of the B.M.A. was held last year and the Act was thoroughly explained by an officer of the Public Health Department and a discussion followed, to which Dr. Molesworth, Dr. Ellis and others specially interested in venereal diseases, contributed. At that time the Act had been gazetted, but not the regulations. If we do have a meeting, it is the Regulations rather than the Act which should be discussed. The Act states (33) that the Governor may make regulations under the Act and either House of Parliament may disallow any regulations by resolution after fifteen days' notice of such resolution. If amendment is to be made, it would be wise to push it through before June 1.

Yours, etc.,

A. H. TEBBUTT.

211 Macquarie Street, Sydney.
April 17, 1920.

THE SO-CALLED MIXED INFECTIONS IN PULMONARY TUBERCULOSIS.

Sir: I have just read your editorial on Dr. Batty Shaw's paper published in the *Lancet*. Both Dr. Batty Shaw and the writer of the editorial apparently go on the assumption that mixed or more properly speaking secondary infection has been proved scientifically.

Dr. Radcliffe, a pathologist of repute, has investigated this thoroughly in cases certified as suffering from mixed infection by Dr. Noel Bardswell, of King Edward's Sanatorium. Only a small percentage was found to have pyogenic infection. This piece of work was considered so good by the Royal College of Physicians that he was awarded the Hermann Weber prize.

Yours, etc.,

A. STEWART.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

The undermentioned have been registered, under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:—

- Howard, Arthur John de Size, M.B., 1916, Mast. Surg., 1918, Univ. Sydney (Turramurra).
McDonald, John, M.B., Bac. Surg., 1917, Univ. Melbourne (Henty).
May, Donald Greig, M.B., Bac. Surg., 1917, Univ. Melbourne (Barham).
Rosanove, Emmanuel, M.B., Bac. Surg., 1919, Univ. Melbourne (Tocumwal).

The following additional registrations have been made:—
Arnold, Geoffrey Penrose, Mast. Surg., 1920, Univ. Sydney.

Bridges, Frederick John, Mast. Surg., 1920, Univ. Sydney.
Craig, Francis Brown, Mast. Surg., 1912, Univ. Sydney.
Clayton, Harry John, Mast. Surg., 1920, Univ. Sydney.
Fisher, Eric Mortley, Mast. Surg., 1920, Univ. Sydney.
Flynn, Michael Richard, Mast. Surg., 1920, Univ. Sydney.
Hunter, Lancelot John, Mast. Surg., 1919, Univ. Sydney.
Lovejoy, Roy Arnold, Mast. Surg., 1920, Univ. Sydney.
Maguire, Frederick Arthur, F.R.C.S., Eng., 1919.

The name of Silas Charles Rand, M.D., Rush. Med. Col., Ill., U.S.A., 1897, has been restored to the Register.

Medical Appointments.

Under the provisions of the *Workers' Compensation Act, 1915*, Dr. Victor Hurley, C.M.G. (B.M.A.), has been appointed a Certifying Medical Practitioner and a Medical Referee at Melbourne and, under the same Act, Dr. H. W. Lording (B.M.A.) has been appointed Certifying Medical Practitioner at Carnegie, Victoria.

The appointment to the Brisbane Hospital of Dr. H. W. Savidge and Dr. Hedley Brown as Resident Medical Officers, is announced in the *Queensland Government Gazette*.

In the State Government Insurance Office, Brisbane, Dr. P. F. V. Crowe (B.M.A.) has been appointed Medical Officer for the Life Department, under the provisions of the *Workers' Compensation Acts, 1916 to 1918*, and the *Insurance Act of 1916* of Queensland.

The appointment of Dr. G. S. Robinson (B.M.A.) as Government Medical Officer at Lockhart, Queensland, has been approved.

Dr. J. W. Springthorpe (B.M.A.) has been appointed a member of the Dental Board of Victoria for a period of three years, commencing on March 1, 1920.

Dr. F. G. N. Stephens (B.M.A.) has been appointed Visiting Surgeon to Shaftesbury Institution at South Head, Sydney.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxv.
University of Sydney: Lecturer in Obstetrics.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	All Friendly Society Lodges (other than the Grand United Order of Oddfellows and the Melbourne Tramways Mutual Benefit Society), Institutes, Medical Dispensaries and other Contract Practice. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Cloncurry Hospital. Stannary Hills Hospital.

Branch.	APPOINTMENTS.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmalm United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Newcastle Collieries—Killingworth, Seaham Nos. 1 and 2, West Wallsend. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

- Apr. 27.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Apr. 28.—Vic. Branch, B.M.A., Council.
Apr. 29.—S. Aust. Branch, B.M.A..
Apr. 29.—Western Suburbs Med. Assoc. (N.S.W.), Annual.
Apr. 30.—N.S.W. Branch, B.M.A..
May 5.—Vic Branch, B.M.A..
May 7.—Q. Branch, B.M.A..
May 11.—Tas. Branch, B.M.A..
May 11.—N.S.W. Branch, B.M.A., Ethics Committee.
May 13.—Vic. Branch, B.M.A., Council; Election of Representative on Representative Body.
May 13.—Q. Branch, B.M.A., Council.
May 14.—N.S.W. Branch, B.M.A., Clinical.
May 14.—S. Aust. Branch, B.M.A., Council.
May 18.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
May 18.—Illawarra Suburbs Med. Assoc. (N.S.W.).
May 19.—W. Aust. Branch, B.M.A..
May 20.—The City Medical Association (Sydney).

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.
Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.
All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney. (Telephone: City 2645.)